

Author Index to Volume 37(10)

References with L are Letters to the Editor

- Abramov, A. I. Variation of Angular Distributions of Neutrons Elastically Scattered from He^3 - 1046L.
- Abrikosov, A. A., L. P. Gor'kov, and I. M. Khalatnikov. Analysis of Experimental Data Relating to the Surface Impedance of Superconductors - 132.
- Agranovich, V. M. Dispersion of Electromagnetic Waves in Crystals - 307.
- Akhiezer, I. A., R. V. Polovin, and N. L. Tsintsadze. Simple Waves in the Chew-Goldberger-Low Approximation - 539.
- Akimov, Yu. K., K. S. Marish, O. V. Savchenko, and L. M. Soroko. Measurement of the Polarization of Deuterons in the Reaction $p + p \rightarrow d + \pi^+$ at Proton Energies of 670 Mev - 33.
- Alekseeva, K. I. and N. L. Grigorov. Heavy Nuclei Flux in the Primary Cosmic Radiation at a Geomagnetic Latitude of 31°N - 271.
- , S. I. Brikker, N. L. Grigorov, V. S. Murzin, and F. D. Savin. Investigation of Pion Production in Interactions of Cosmic-Ray Protons and α Particles with Carbon Nuclei in the Stratosphere - 422.
- Alekseevskii, N. E. and Yu. P. Gaidukov. The Anisotropy of Magnetoresistance and the Topology of Fermi Surfaces of Metals - 481.
- Alkhanov, R. A. Antiferromagnetism in NiF_2 - 814L.
- Alkhashov, D. G., A. P. Grinberg, G. M. Gusinskii, K. I. Erokhina, and I. Kh. Lemberg. Coulomb Excitation of Odd-mass Nuclei by Multiply-Charged Ions - 1086.
- Amaglobeli, N. S. and Yu. M. Kazarinov. Elastic Scattering of 630-Mev Neutrons by Protons - 1125.
- Andronikashvili, É. L. and D. S. Tsakadze. Experimental Investigation of the Harmonic Oscillations of a Disk in Rotating Helium. II - 397L.
- . The Propagation of Oscillations along Vortex Lines in Rotating Helium. II - 227L.
- Anikina, M. P. (see Tret'yakov, E. F.) - 656.
- Ansel'm, A. A. and V. N. Gribov. On the Possibility of Determining the Amplitude for Charge Exchange Pion-Pion Scattering from an Analysis of the $\pi^+ + p \rightarrow n + \pi^+ + \pi^0$ Reactions near Threshold - 354.
- Anton'eva, N. M., A. A. Bashilov, and E. K. Kulakovskii. Radioactive Decay of $\text{Ag}^{110\text{m}}$ - 1063.
- Antonov-Romanovskii, V. V., V. G. Dubinin, A. M. Prokhorov, Z. A. Trapeznikova, and M. V. Fock. Detection of Ionization of Eu^{++} in the SrS-Eu , Sm Phosphor by the Paramagnetic Absorption Method - 1039L.
- Antonova, S. F., S. S. Vasilenko, M. G. Kaganskii, and D. L. Kaminskii. Positron Spectrum of Eu^{152} and $\text{Eu}^{154\text{m}}$ - 477.
- Apustolov, D. A. (see Berlovich, É. E.) - 855.
- Arkhipov, R. G. and A. I. Shal'nikov. On the Motion of Charges in Liquid Helium - 888.
- Artemov, K. P., S. P. Kalinin, and L. N. Samoilov. Scattering of 5-10 Mev Protons on He^3 - 474.
- , N. A. Vlasov, and L. N. Samoilov. Polarization of Neutrons from the $T(p, n)\text{He}^3$ Reaction and Protons from the $\text{He}^3(n, p)T$ Reaction - 841.
- Askar'yan, G. A., L. P. Kotenko, E. P. Kuznetsov, and A. V. Samoilov. On Certain Experiments with Metastable Liquids in an X-ray Beam - 1041L.
- Astrov, D. N., S. I. Novikova, and M. P. Orlova. Shift in Curie Temperature during Uniform Compression of Manganese and Cobalt Fluorides - 851.
- Avakov, G. V. Electron-Electron Scattering and Quantum Electrodynamics at Small Distances - 604L.
- Avvakumov, V. I. The Dynamical Character of the Jahn-Teller Effect and Its Influence on the Paramagnetic Resonance of Cu^{2+} - 723.
- , N. S. Garifyanov, B. M. Kozyrev, and P. G. Tishkov. Paramagnetic Resonance and Paramagnetic Relaxation in Electrolyte Solutions - 1110.
- Bagdasar'yan, Z. A. (see Piskunov, A. K.) - 213L.
- Baier, V. N. Electron-Electron Scattering Cross Section at High Energies - 1057L.
- Balandin, M. P. (see Laberrigle-Frolova, J. V.) - 452.
- Balashov, V. V., V. G. Neudachin, Yu. F. Smirnov, and N. P. Yudin. Reduced Widths for Nucleon Associations in the Shell Model of the Nucleus - 983.
- Balats, L. Ya., (see San'ko, L. A.) - 1.
- Balats, M. Ya., P. I. Lebedev, and Yu. V. Obukhov. Production of K^+ Mesons by Cosmic-Ray Protons at 3250 m Above Sea Level - 417.
- Baldin, A. M. Optical Anisotropy of Atomic Nuclei - 142.
- Bannik, B. P., V. G. Grishin, M. Ya. Danysh, V. B. Lyubimov, and M. I. Podgoretskii. Elastic Scattering of 8.7-Bev Protons by Photoemulsion Nuclei - 1118.
- Barabanenkov, Yu. N. On the Solution of the Kinetic Equation for a Plasma in a Variable Magnetic Field - 305.
- Barashenkov, V. S. Angular Asymmetry in (πN) Collisions and the $(\pi\pi)$ Interaction - 1038L.
- , and V. M. Mal'tsev. Resonance Interaction of Pions - 630L.
- , V. M. Mal'tsev, and É. K. Mikhul. Theoretical Interpretation of Inelastic (pp) and (pn) Collisions at 9 Bev Energy - 1052L.
- Barsukov, K. A. Transition Radiation in Waveguides - 787.
- Bar'yakhtar, V. G. On the Theory of Magnetic-Moment Relaxation in Ferrodielectric Substances - 493.
- Basov, N. G. and A. N. Oraevskii. Use of Slow Molecules in a Maser - 761.
- , B. M. Vul, and Yu. M. Popov. Quantum-mechanical Semiconductor Generators and Amplifiers of Electromagnetic Oscillations - 416L.
- Bashilov, A. A. (see Anton'eva, N. M.) - 1063.
- Bass, F. G. and M. I. Kaganov. Raman Scattering of Electromagnetic Waves in Ferromagnetic Dielectrics - 986.
- Batygin, V. V. and I. N. Toptygin. Inelastic Collisions Between Fast Polarized Particles and Atoms - 975.
- Bazhanov, E. B. Spectrum of Photoprotons Produced by

- Gamma Rays in the Narrow 82 - 89 Mev Energy Range - 267.
- Bedescu, A., K. P. Mitrofanov, A. A. Sorokin, and V. S. Shipilov. Decay of Te^{131} ($T_{1/2} = 30$ hr) - 221L.
- Belousov, A. S., S. V. Rusakov, E. I. Tamm, and P. A. Cerenkov. Search for Particles with Mass between 6 and 25 Electron Masses - 1143.
- Belov, K. P. and R. Z. Levitin. Magnetostriction of Antiferromagnetic Nickel Monoxide - 400L.
- and E. P. Svirina. Hall Effect in Ferrites near the Curie Temperature - 862.
- , G. I. Kataev, and R. Z. Levitin. Anomalies in Internal Friction and Modulus of Elasticity in Ferromagnetics Near the Curie Point - 670.
- , M. A. Zaitseva, and A. M. Kadomtseva. Features of Magnetic Hysteresis Phenomena in the Systems $\text{Pr}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$ and $\text{La}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$ - 825L.
- Bel'skil, S. A. and S. V. Starodubtsev. Small Angle Rayleigh Scattering of Co^{60} Gamma Rays - 700L.
- Belyaev, V. B., S. S. Gershteyn, B. N. Zakhar'ev, and S. P. Lomnev. Mesic Molecular Processes in Hydrogen - 1171.
- (see Fedorenko, N. V.) - 1276L.
- Berkovich, I. B., A. P. Zhdanov, F. G. Lepekhin, and Z. S. Khokhlova. Nonmesonic Decay of Hyperfragments - 428.
- Berlovich, E. E., V. N. Klement'ev, V. G. Fleisher, O. V. Lariouev, F. Sh. Murtazin, and D. A. Apostolov. Forbidden Transitions in the Deformed Tm^{169} Nucleus - 855.
- Bershtein, I. L. and M. E. Gertsenshtein. Possibility of Measuring the Velocity of Propagation of Gravitation in the Laboratory - 1293L.
- Bezugiyl, P. A. and A. A. Galkin. Cyclotron Resonance in Indium at 9300 Mcs - 1049L.
- Biberman, L. M. and B. A. Veklenko. Radiative Processes Ahead of a Shock-Wave Front - 117.
- Bilen'ki, S. M., R. M. Ryndin, Ya. A. Smorodinskii, and Ho Tso-Hsiu. On the Theory of Neutron Beta Decay - 1241.
- Birger, N. G. and Yu. A. Smorodin. On a Certain Possibility of Investigation of the Structure of Nucleons and Nuclei - 964.
- Blokhintsev, L. D. (see Shapiro I. S.) - 542.
- Bogachev, N. P., S. A. Bunyatov, I. M. Gramenitskii, V. B. Lyubimov, Yu. P. Merezkov, M. I. Podgoretskii, V. M. Sidorov, and D. Tuvdendordzh. Interaction of 9 Bev Protons with Free and Quasifree Nucleons in Photographic Emulsions - 872.
- Bogolyubov, N. N., A. A. Logunov, and D. V. Shirkov. The Method of Dispersion Relations and Perturbation Theory - 574.
- Bogoyavlenskii, I. V., V. N. Grigor'ev, and N. S. Rudenko. Effect of Temperature on the Variation of the Isotopic Composition of Liquid Mercury in the Electric Field of a Constant Current - 884.
- Bolotovskii, B. M. and A. A. Rukhadze. Field of a Charged Particle in a Moving Medium - 958.
- Boos, E. G. and Zh. S. Takibaev. On an Estimate of Energy Characteristics of Shower Producing Particles - 206L.
- Borisova, N. L., M. Ya. Kuznetsova, L. N. Kurchatova, V. N. Mekhedov, and L. V. Chistyakov. Recoil Nuclei from the Disintegration of Silver by Fast Protons - 261.
- Borovskii, I. B. and I. A. Ovsyannikova. Investigation of X-Ray Spectra of Superconducting CuS - 1433L.
- Braginskii, S. I. On the Magnetohydrodynamics of Conducting Fluids - 1005.
- Brandt, N. B. and G. A. Ryabenko. Effect of Uniaxial Compression on the Quantum Oscillations of the Magnetic Susceptibility of Bismuth - 278.
- , A. E. Dubrovskaya, and G. A. Kytin. An Investigation of the Quantized Oscillations in the Magnetic Susceptibility of Bismuth at Extremely Low Temperatures - 405L.
- Braun, M. A. On the Determination of the Potential in Quantum Field Theory - 582.
- Brikker, S. I. (see Alekseeva, K. I.) - 422.
- Brish, A. A., M. S. Tarasov, and V. A. Tsukerman. Electric Conductivity of the Explosion Products of Condensed Explosives - 1095.
- Brodskii, A. M. and D. D. Ivanenko. On the Connection of Isotopic Spin and Strangeness with the Behavior of Spinors under Inversion - 624L.
- Budagov, Yu. A., S. Viktor, V. P. Dzhelepov, P. F. Ermolov, and V. I. Moskalov. Beta Decay of the Negative Muon - 625L.
- Bukhvostov, A. P. and I. M. Shmushkevich. Capture of Polarized Muons by Deuterons - 1042L.
- Bulatova, R. F., V. S. Kogan, and B. G. Lazarev. Mutual Solubility of Hydrogen and Deuterium at 4.2°K - 1058L.
- (see Kogan, V. S.) - 485.
- Bunyatov, S. A. (see Bogachev, N. P.) - 872.
- Burgov, N. A., G. V. Danilyan, B. S. Dolbilkin, L. E. Lazareva, and F. A. Nikolaev. On the Fine Structure of the Giant Resonance - 1278L.
- Bychkov, Yu. A., L. E. Gurevich, and G. M. Nedlin. Thermoelectric Phenomena in Strong Magnetic Fields in Metals Possessing Various Fermi Surfaces - 377.
- Cerenkov, P. A. (see Belousov, A. S.) - 1143.
- Chaika, M. P. (see Kaliteevskii, N. I.) - 629L.
- Cheng P'u-Ying (see Lyubimov, V. B.) - 651.
- (see Zhdanov, G. B.) - 433.
- Chernavskii, D. S. (see Emel'yanov, A. A.) - 753.
- Chilashvili, G. A. (see Vashakidze, I. Sh.) - 535.
- Chistyakov, L. V. (see Borisova, N. I.) - 261.
- Chou Kuang-Chao and V. I. Ogievetskii. Electromagnetic Mass of the K Meson - 616L.
- (see Lapidus, L. I.) - 199.
- (see Lapidus, L. I.) - 1213.
- Chuev, V. I. (see Vlasov, N. A.) - 844.
- Chultém, D. (see Egorov, L. B.) - 1077.
- Chuvilo, I. V. On a Certain Possibility of Setting up a System of "Elementary" Particles - 994.
- Daion, M. I. and V. Kh. Volynskii. On the Measurement of the Momentum of Fast Particles and the Investigation of Nuclear Interaction in the 10^{10} - 10^{12} ev Energy Range - 648.
- Danilyan, G. V. (see Burgov, N. A.) - 1278L.
- Danysh, M. Ya. (see Bannik, B. P.) - 1118.
- Darovskikh, V. F., N. P. Kochoerov, and N. A. Perfilov. Fragmentation on Bismuth Nuclei - 921.
- Dautov, R. A. (see Korepanov, V. D.) - 218L.

- Davies, R. and F. Goodman. On Popov's Relation between the Symmetry of Transport Coefficients and Thermodynamics - 828L.
- Davydov, A. S. Intensity Rules for Beta Transitions to Different Rotational States of Even-Even Daughter Nuclei - 98.
- Degtyarev, I. F. (see Kirenskiĭ, L. V.) - 437.
- Delyagin, N. N. Electric Quadrupole Gamma Transitions in Even-even Nuclei - 605L.
- Resonance Scattering of Gamma Quanta on Cd^{114} Nuclei - 837.
- Demirkhanov, R. A., T. I. Gutkin, and V. V. Dorokhov. Isotopic Masses and Binding Energies of Nuclei for Masses between 186 and 196 - 866.
- Dmitriev, V. A., G. V. Kulikov, and G. B. Khristiansen. Investigation of High-Energy Nuclear-Active Particles at Sea Level - 637.
- (see Vernov, S. N.) - 1050L.
- Dolbilkin, B. S. (see Burgov, N. A.) - 0000L.
- Dolginov, A. Z. and E. V. Kharitonov. Angular Distribution and Polarization of Beta Particles in Second Forbidden Transitions - 553.
- and A. N. Moskaliev. Relativistic Spherical Functions - 1202.
- and I. N. Toptygin. Relativistic Spherical Functions - 1022.
- Donets, E. D. (see Pereygin, V. P.) - 1106.
- Dorokhov, V. V. (see Demirkhanov, R. A.) - 866.
- Dotsenko, B. B. Pionic and Electromagnetic Structure of Nucleons - 1048L.
- Druin, V. A., Yu. V. Lobanov, and S. M. Polikanov. Angular Distribution of Fission Fragments in Fission Induced by Heavy Ions - 26.
- (see Mikheev, V. L.) - 612L.
- Drukarev, G. F. On the Massey Parameter in the Theory of Atomic Collisions - 603L.
- Dubinin, V. G. (see Antonov-Romanovskii, V. V.) - 1039L.
- Dubrovskaya, A. E. (see Brandt, N. B.) - 405L.
- Dukel'skiĭ, V. M. (see Khvostenko, V. I.) - 465.
- Dukhin, S. S. Anomalous Heat Capacity and Nuclear Resonance in Crystalline Hydrogen in Connection with New Data on Its Structure - 1054L.
- Dyatlov, I. T. Threshold Momentum Power Series Expansion of the Amplitude of a Reaction Involving the Formation of Low Energy Particles - 947.
- Dykman, I. M. and S. I. Pekar. Light Waves in Crystals in the Exciton Absorption Region and the Impurity Photoeffect - 361.
- Dzheleпов, B. S., I. F. Uchevatkin, and S. A. Shestopalova. $O^+ - O^+$ Transition in the Decay $\text{Pr}^{140} \rightarrow \text{Ce}^{140}$ - 611L.
- (see Budagov, Yu. A.) - 625L.
- Dzyaloshinskiĭ, I. E. On the Magneto-Electrical Effect in Antiferromagnets - 628L.
- , E. M. Lifshitz, and L. P. Pitaevskii. Van der Waals Forces in Liquid Films - 161.
- Egorov, L. B., A. E. Ignatenko, and D. Chultém. Effect of the Hyperfine Structure on Polarization of Negative Muons in Mesic Atoms - 1077.
- Él'tekov, V. A. On the Influence of the Pauli Principle and of Short-Range Nuclear Forces on the Absorption of Photons by Nuclei in the Oscillator Model - 830L.
- Emel'yanov, A. A. and D. S. Chernavskii. Effect of Viscosity in Multiple Production on the Energy Distribution of Secondary Particles - 753.
- Ermolov, P. F. (see Budagov, Yu. A.) - 625L.
- Ernst, B. M. (see Lomsadze, Yu. M.) - 955.
- Erokhina, K. I. (see Alkhazov, D. G.) - 1086.
- Esel'son, B. N. and A. D. Shvets. The Use of a Superconducting Ring for Registering the Phase Transition in Liquid Helium - 228L.
- Fadeev, V. M. (see Korepanov, V. D.) - 218L.
- Fainberg, V. Ya. Application of the Dispersion Relations Method in Quantum Electrodynamics - 968.
- Fedorenko, N. V. and V. A. Belyaev. Maximum Atomic Cross Sections for Nonresonance Charge Exchange - 1276L.
- Fedotov, P. I. Potential Barrier Criterion and Stars in Emulsions - 674.
- (see Zhdanov, A. P.) - 280.
- Fetisov, I. K. and O. B. Firsov. Resonance Charge Exchange of Doubly Charged Ions in Slow Collisions - 67.
- Fillimonov, V. A. (see Lyul'ka, V. A.) - 1015.
- Fillimonov, Yu. I. (see Golenetskii, S. V.) - 395L.
- Filippova, K. V. (see Guseva, L. I.) - 694.
- (see Volkov, V. V.) - 859.
- Filov, R. A. (see Ostroumov, V. I.) - 459.
- Firsov, O. B. (see Fetisov, I. K.) - 67.
- Fisun, A. N. (see Grishaev, I. A.) - 1031L.
- Fleisher, V. G. (see Berlovich, É. E.) - 855.
- Flerov, G. N. (see Karnaukhov, V. A.) - 901.
- (see Korneev, E. I.) - 29.
- (see Mikheev, V. L.) - 612L.
- (see Pereygin, V. P.) - 1106.
- Fock, M. V. (see Antonov-Romanovskii, V. V.) - 1039L.
- Fradkin, É. E. (see Kaliteevskii, N. I.) - 629L.
- Fremlin, J. H. and J. S. Lille. Nuclear Reactions Induced by Heavy Ions - 229L.
- Frolov, G. V. Polarization Effects in the Elastic Scattering of Electrons from Deuterons - 269.
- Gadzhiev, S. A. (see Kerimov, B. K.) - 407L.
- Gaidukov, Yu. P. Topology of the Fermi Surface of Gold - 913.
- (see Alekseevskii, N. E.) - 481.
- Galanin, A. D., A. F. Grashin, B. L. Ioffe, and I. Ya. Pomeranchuk. On the Collisions of Nucleons with Large Orbital Angular Momentum - 1179.
- Galkin, A. A. and A. P. Korolyuk. Oscillations in the Absorption Coefficient of Sound in Tin at Low Temperature - 219L.
- and I. V. Matyash. On the Structure of Solid Hydrogen - 1292L.
- (see Bezuglyĭ, P. A.) - 1049L.
- Gamsteldt, G. A. On the Critical Mode in Experiments with an Oscillating Disk - 678.
- The Landau Correction Coefficient in the Determination of the Viscosity of a Liquid - 609L.
- Gandel'man, G. M. and V. S. Pinaev. Emission of Neutrino Pairs by Electrons and the Role Played by it in Stars - 764.
- Gaponov, Yu. V. Second Forbidden Coulomb β -Decay Transitions - 109.
- Garibyan, G. M. Transition Radiation Effects in Particle Energy Losses - 372.
- and I. Ya. Pomeranchuk. Limits of Applicability of

- the Theory of Transition Radiation — 0000L.
 Garlyanov, N. S. Paramagnetic Resonance in Magnetically Dilute Systems — 1101.
 — (see Avvakumov, V. I.) — 1118.
 Gellikman, B. T. On the Question of Critical Velocities for Flow of He II in Capillaries — 635L.
 Gel'man A. P. On the Relativistic Operators for Momentum and Angular Momentum — 339.
 Gershman, B. N. Nonresonance Absorption of Electromagnetic Waves in a Magnetoactive Plasma — 497.
 Gershtein, S. S. (see Belyaev, V. B.) — 1171.
 Gertsenshtein, M. E. (see Bershtein, I. L.) — 1293L.
 Getmantsev, G. G. Growth of Electromagnetic Waves in Interpreting Infinite Moving Media — 600.
 Ginzburg, N. I. and A. I. Shal'nikov. Destruction of Superconductivity in Thin Films by Field and Current — 285.
 Gippius, A. A. (see Vavilov, V. S.) — 15.
 Gogichal'svili, Sh. M. (see Kucheryaev, A. G.) — 412L.
 Gol'danskii, V. I. and M. I. Podgoretskii. Possible Method of Identifying New Transuranic Elements — 223L.
 — (see Vasil'kov, R. G.) — 7.
 — (see Vasil'kov, R. G.) — 818L.
 Gol'din, L. L., G. I. Novikova, N. I. Pirogova, and E. F. Tret'yakov. Alpha Decay of Th^{229} . Interaction of Nuclear Levels — 822L.
 — (see Novikova, G. I.) — 663.
 — (see Tret'yakov, E. F.) — 656.
 Golenetskii, S. V., L. I. Rusinov, and Yu. I. Filimonov. On the Decay Scheme of the Bi^{210} Isomer — 395L.
 Gol'fand, Yu. A. On the Introduction of an "Elementary Length" in the Relativistic Theory of Elementary Particles — 356.
 — On Lepton Mass — 1059L.
 Golitsyn, G. S. Some Problems of the Dynamics and Heating of a Conducting Medium in a Magnetic Field — 756.
 Goodman, F. (see Davies R.) — 828L.
 Gordon, I. M. Mechanism for the Production of Relativistic Electrons in the Atmospheres of Nonstationary Stars — 608L.
 Gor'kov, L. P. The Critical Supercooling Field in Superconductivity Theory — 593.
 — Theory of Superconduction Alloys in a Strong Magnetic Field Near the Critical Temperature — 998.
 — (see Abrikosov, A. A.) — 132.
 Gornyi, N. B. Discrete Electron Energy Losses and Secondary Emission from CdO — 242.
 Gorshkov, M. M. (see Vavilov, V. S.) — 15.
 Govorkov, B. B. (see Vasil'kov, R. G.) — 7.
 — (see Vasil'kov, R. G.) — 224L.
 — (see Vasil'kov, R. G.) — 818L.
 Gramentskii, I. M. (see Bogachev, N. P.) — 872.
 Granovskii, Ya. I. On the Calculation of the Interaction Constant in a Nonlinear Theory — 135.
 — The Electromagnetic Interaction in the Heisenberg Theory — 314.
 Grashin, A. F. (see Galanin, A. D.) — 1179.
 — (see Kirillov-Ugryumov, V. G.) — 907.
 Grebenshchikov, S. E. (see Raizer, M. D.) — 398L.
 Grechukhin, D. P. On the Nucleon + Core Model of the Nucleus with a Vibrational Excitation Spectrum of the Core — 730.
 Gribov, V. N. (see Ansel'm, A. A.) — 354.
 Grigor'ev, E. L. and N. A. Mitin. Elastic Scattering of 390-Mev π^+ Mesons from Protons — 1123.
 — and N. A. Mitin. Polarization of Recoil Protons Produced in Elastic Scattering at 307 Mev — 295.
 Grigor'ev, V. N. (see Bogoyavlenskii, I. V.) — 884.
 Grigorov, N. L. and M. A. Kondrat'eva. Investigation of a Shower Consisting of 200,000 Particles and Recorded in a Nuclear Photographic Plate — 489.
 — and V. Ya. Shestoporov. On Certain Singularities in the Interaction with Light Nuclei of Particles with Energies $E \geq 2 \times 10^{12}$ ev — 816L.
 — (see Alekséeva, K. I.) — 271.
 — (see Alekséeva, K. I.) — 422.
 Grinberg, A. P. (see Alkhazov, D. G.) — 1086.
 Grishaev, N. A., A. N. Fisun, A. S. Litvinenko, V. M. Grizhko, B. I. Shramenko, and I. N. Onishchenko. Measurement of Energy Loss of Fast Electrons Penetrating through Matter — 1031L.
 Grishin, V. G. (see Bannik, B. P.) — 1118.
 Grizhko, V. M. (see Grishaev, N. A.) — 1031L.
 Gurevich, A. V. The Influence of Collisions between Electrons on Their Velocity Distribution in Gases and in Semiconductors in an Electric Field — 215L.
 Gurevich, I. I., B. A. Nikol'skii, and L. V. Surkova. Three-Electron Decay of the Muon — 225L.
 Gurevich, L. É. and I. P. Ipatova. Faraday Effect in Semiconductors on Free Carriers in a Strong Magnetic Field — 943.
 — and G. M. Nedlin. Thermoelectric Coefficients of Metals in Strong Magnetic Fields and the Effect of Drag of Electrons by Photons — 546.
 — (see Bychkov, Yu. A.) — 377.
 Gurevich, V. I. Ultrasonic Absorption in Metals in a Magnetic Field I — 51.
 — Ultrasonic Absorption in Metals in a Magnetic Field. II — 1190.
 Guseva, L. I., B. F. Myasoedov, N. I. Tarantin, and K. V. Filippova. Cross Section for Production of Cm^{240} by Irradiation of Th^{232} with C^{12} and C^{13} Ions — 694.
 — (see Volkov, V. V.) — 859.
 Gusinskii, G. M. (see Alkhazov, D. G.) — 1086.
 Gutkin, T. I. (see Demirkhanov, R. A.) — 866.
 Gutman, I. I. A Generally Covariant Method of Successive Approximations in General Relativity — 1162.
 Ho Tso-Hsiu. The Formfactor and the Leptonic Decay Probability of the Λ Particle — 1288L.
 — (see Bilen'kii, S. M.) — 1241.
 Ignatenko, A. E. (see Egorov, L. B.) — 1077.
 Inopin, E. V. and B. I. Tishchenko. Scattering of Electrons by Light Nonspherical Nuclei — 932.
 Ioffe, B. L. Analyticity and Unitarity in the Scattering of Scalar Mesons from a Static Nucleon — 1245.
 — Capture of μ^- Mesons by Light Nuclei — 113.
 — (see Galanin, A. D.) — 1179.
 Iogansen, L. V. Effect of Interaction on the Phase Motion of Electrons in a Synchrotron — 211L.
 — and M. S. Rabinovich. Coherent Electron Radiation in the Synchrotron II — 83.
 Ipatova, I. P. (see Gurevich, L. É.) — 943.

- Isaev, P. S. (see Zlatev, I. S.) — 519.
 — (see Zlatev, I. S.) — 826L.
 Ishmukhametov, B. Kh. (see Vlasov, K. B.) — 531.
 Ivanenko, D. D. and N. V. Mitskevich. Taking Account of the Gravitational Energy — 618L.
 — (see Brodskii, A. M.) — 624L.
 Ivanenko, I. P. On the Theory of the Passage of the Nuclear Cascade Through the Atmosphere — 744.
 Ivanov, V. G., V. T. Osipenko, N. I. Petrov, and V. A. Rusakov. Cross Sections for Elastic Scattering of 195-Mev Positive Pions by Carbon and Lithium Nuclei — 615L.
 — (see Petrov, N. I.) — 682.
 Ivanova, N. S., V. I. Ostroumov, and Yu. V. Pavlov. Production of Multi-Charged Particles on Photographic Emulsion Nuclei by 280-Mev Positive Pions — 1137.
 Kadenskii, S. G. (see Rapoport, L. P.) — 929.
 Kadomtsev, B. B. Convective Pinch Instability — 780.
 — On Equilibrium of a Plasma Under Helical Symmetry — 962.
 — On the Stability of a Low Pressure Plasma — 1167.
 Kadomtseva, A. M. (see Belov, K. P.) — 825L.
 Kaganov, M. I. and V. M. Tsukernik. Nonresonance Absorption of Oscillating Magnetic Field Energy by a Ferromagnetic Dielectric — 587.
 — (see Bass, F. G.) — 986.
 — (see Lifshitz, I. M.) — 392L.
 Kaganski, M. G. (see Antonova, S. F.) — 477.
 Kalinin, S. P. (see Artemov, K. P.) — 474.
 Kalitchevskii, N. I., M. P. Chaika, I. Kh. Pacheva, and E. E. Fradkin — 629L.
 Kaminski, D. L. (see Antonova, S. F.) — 477.
 Kaplan, E. G. Classification of Molecular Terms with Respect to Total Nuclear Spin — 747.
 Karamyan, A. S. and A. A. Pleve. Production of Compound Nuclei by Bombardment of V and Nb with O^{16} , C^{12} , and C^{13} Ions — 467.
 Karnaukhov, V. A., V. I. Khalizev, and G. N. Flerov. Emitters of Alpha Particles with Energies of About 9 and 12 Mev — 901.
 Kataev, G. I. (see Belov, K. P.) — 870.
 Kazantsev, A. P. Motion of Charged Particle in a Rotating Magnetic Field — 1036L.
 Kazarinov, Yu. M. (see Amaglobeli, N. S.) — 1125.
 Keldysh, L. V. Kinetic Theory of Impact Ionization in Semiconductors — 509.
 Kel'man, V. M., R. Ya. Metskharishvili, B. K. Preobrazhenskii, V. A. Romanov, and V. V. Tuchkevich. Multipolarities of Gamma Transitions in Tm^{169} — 456.
 Kerimov, B. K., A. I. Mukhtarov, and S. A. Gadzhiev. Polarization Effects in the $\pi^+ \rightarrow e^+ + e^- + \gamma$ Decay — 407L.
 Khabakhpashev, A. G. and E. M. Tsenter. Measurement of the Lifetime of the First Excited State of Ne^{21} — 705.
 — (see Tsenter, E. M.) — 806L.
 Khaikin, M. S. Cyclotron Resonance on Tin — 1044L.
 Khalatnikov, I. M. (see Abrikosov, A. A.) — 132.
 Khalizev, V. I. (see Karnaukhov, V. A.) — 901.
 Kharitonov, E. V. (see Dolginov, A. Z.) — 553.
 Kharitonov, Yu. I. (see Sliv, L. A.) — 819L.
 Khokhlov, Yu. K. On the Theory of the Nuclear Moment of Inertia — 808L.
 Khokhlova, Z. S. (see Berkovich, I. B.) — 428.
 Khrenov, B. A. (see Vernov, S. N.) — 891.
 Khristiansen, G. B. (see Dmitriev, V. A.) — 637.
 — (see Vernov, S. N.) — 848.
 — (see Vernov, S. N.) — 891.
 — (see Vernov, S. N.) — 1050L.
 Khvostenko, V. I. and V. M. Dukel'skii. Formation of Negative Hydrogen Ions on an Incandescent Tungsten Surface — 465.
 Kirenski, L. V., M. K. Savchenko, and I. F. Degtyarev. On the Magnetization Process in Ferromagnets — 437.
 Kirillov, V. D. Energy Lost to Radiation in a Gas-Discharge Plasma — 812L.
 Kirillov-Ugryumov, V. G., L. P. Kotenko, E. P. Kuznetsov, F. M. Sergeev, and A. F. Grashin. Elastic Scattering of 5–22 Mev π^- -Mesons on Carbon — 907.
 Kirzhnits, D. A. The Energy of a Compressed Imperfect Fermi Gas — 414L.
 Klement'ev, V. N. (see Berlovich, E. E.) — 855.
 Klepikov, N. P. Minimal Error in the Experimental Observation of Asymmetry — 810L.
 Klimontovich, Yu. L. Relativistic Transport Equations for a Plasma I. — 524.
 Kobzarev, I. Yu. (see Shalamov, Ya. Ya.) — 622L.
 Kochelaev, B. I. Contribution to the Theory of Spin-Lattice Relaxation of Nuclear Spins in Ionic Crystals — 171.
 Kocherov, N. P. (see Darovskikh, V. F.) — 921.
 Kogan, V. S., B. G. Lazarev, and R. F. Bulatova. Diffraction of X-rays by Polycrystalline Samples of Hydrogen Isotopes — 485.
 — (see Bulatova, R. F.) — 1058L.
 Kokin, A. A. and G. V. Skrotskii. Theory of Paramagnetic Resonance in Systems Containing Two Kinds of Magnetic Moments — 342.
 — (see Skrotskii, G. V.) — 572.
 Kolesnikov, N. N. and A. P. Krylova. The Proton Subshell $Z = 100 - 389L$.
 Kolganova, E. D. (see Valsenberg, A. O.) — 231L.
 Komar, A. P. (see Vorob'ev, A. A.) — 386L.
 — (see Vorob'ev, A. A.) — 1032L.
 Komarov, V. V. (see Vasil'ev, S. S.) — 1034L.
 Kompaneets, A. S. Propagation of a Strong Electromagnetic-Gravitational Wave in Vacuo — 1218.
 Kondorskii, E. I. On the Causes of the Peculiarities in the Physical Properties of Invar Alloys — 1284L.
 — Theory of the Stability of Magnetic States of Ferromagnetic Materials in the Magnetization Process — 790.
 Kondrat'eva, M. A. (see Grigorov, N. L.) — 489.
 Konstantinov, O. V. and V. I. Perel'. Quantum Theory of Spatial Dispersion of Electric and Magnetic Susceptibilities — 560.
 Konyukov, M. V. Nonlinear Langmuir Electron Oscillations in a Plasma — 570.
 Kopaleishvili, T. I. (see Mamasakhilov, V. I.) — 93.
 — (see Mamasakhilov, V. I.) — 807L.
 — (see Vashakidze, I. Sh.) — 535.
 Kopylov, G. I. Identification of Particles in High Energy Stars — 393L.
 Kopylova, D. D., Yu. B. Korolevich, N. I. Petukhova,

- and M. I. Podgoretskii. On the Mechanism of Capture of Stopped K^+ Mesons — 203.
- Kopylovskii, B. D. (see Vasilov, V. S.) — 15.
- Korepanov, V. D., R. A. Davutov, and V. M. Fadeev. Measurements of the Transverse Proton Relaxation Time in Aqueous Solutions of Paramagnetic Salts by Spin-echo Method — 218L.
- Korneev, E. I., V. S. Skobkin, and G. N. Flerov. Fission of Th^{232} by Thermal Neutrons — 29.
- Korolev, V. A. (see Vorob'ev, A. A.) — 386L.
- (see Vorob'ev, A. A.) — 1032L.
- Korolevich, Yu. B. (see Kopylova, D. K.) — 203.
- Korolyuk, A. P. (see Galkin, A. A.) — 219L.
- Koshelyaev, G. V. (see Vasil'ev, S. S.) — 1034L.
- Kotenko, L. P. (see Askar'yan, G. A.) — 1041L.
- (see Kirillov-Ugryumov, V. G.) — 907.
- Kovrizhnykh, L. M. Effect of Inelastic Collisions on the Velocity Distribution of Electrons — 347.
- Oscillations of an Electron-Ion Plasma — 1198.
- Stability of a Hollow Gas Conductor in a Magnetic Field — 65.
- Velocity Distribution of Electrons in a Strong Electric Field — 989.
- Kozyrev, B. M. (see Avvakumov, V. I.) — 1110.
- Kresnin, A. A. On the Polarization of the Electrons in Bremsstrahlung Processes — 621L.
- Krestnikov, Yu. S., A. G. Meshkovskii, Ya. Ya. Shalamov, V. A. Shebanov, and I. Yu. Kobzarev. The $\mu^- \rightarrow e + \gamma$ and $\mu^- \rightarrow e + \bar{\nu} + \gamma$ Decays — 622L.
- Krylova, A. P. (see Kolesnik, N. N.) — 389L.
- Kucherov, R. Ya. and L. É. Rikenglaz. Concentration Jump in Slow Evaporation of a Mixture — 1285L.
- and L. É. Rikenglaz. On Hydrodynamic Boundary Conditions for Evaporation and Condensation — 88.
- Kucheryaev, A. G., Yu. K. Szhenov, and Sh. M. Gogichashvili. Measurements of Nuclear Magnetic Moments in the Alkali Earths by Molecular Beam Magnetic Resonance — 412L.
- Kulakovskii, E. K. (see Anton'eva, N. M.) — 1063.
- Kul'chitskii, L. A. and V. Presperin. Fast Photoneutrons from Be^9 , C^{12} , and Al^{27} — 1082.
- Kulikov, G. V. (see Dmitriev, V. A.) — 637.
- (see Vernov, S. N.) — 848.
- Kulikovskii, A. G. and G. A. Lyubimov. On the Paper of V. A. Belokon': "The Permanent Structure of Shock Waves with Joule Dissipation" — 835L.
- Kurchatova, L. N. (see Borisova, N. I.) — 261.
- Kurushin, A. I. Paramagnetic Absorption and Rotation of Plane of Polarization for Certain Salts in the Microwave Band — 209L.
- Kutsaeva, L. S. (see Kuz'minov, B. D.) — 290.
- Kuz'minov, B. D., L. S. Kutsaeva, V. G. Nesterov, L. I. Prokhorova, and G. N. Smirenkin. Some Features of the Spontaneous Fission of U^{238} — 290.
- Kuznetsov, E. P. (see Askar'yan, G. A.) — 1041L.
- (see Kirillov-Ugryumov, V. G.) — 907.
- Kuznetsov, V. P. On Electromagnetic Corrections in $\mu^- e$ Decay — 784.
- Kuznetsova, M. Ya. (see Borisova, N. I.) — 261.
- Kytin, G. A. (see Brandt, N. B.) — 405L.
- Laberrigue-Prolova, J. V., M. P. Balandin, and S. Z. Otvinovskii. On the Absorption of π^+ Mesons with Energies of About 50 Mev by Carbon Nuclei — 452.
- Landau, L. D. On the Analytic Properties of Vertex Parts in Quantum Field Theory — 45.
- Lapidus, L. I. and Chou Kuang-Chao. Dispersion Relations for the Scattering of Gamma Quanta by Nucleons — 1213.
- and Chou Kuang-Chao. On the Problem of Investigating the Interaction between Pions and Neutrons — 199.
- Larionov, O. V. (see Berlovich, É. E.) — 855.
- Larkin, A. I. Passage of Particles through a Plasma — 186.
- Lazarev, B. G., A. I. Sudovtsev, and E. E. Semenenko. Superconductivity of Beryllium and its Low-Temperature Polymorphism — 1035L.
- (see Bulatova, R. F.) — 1058L.
- (see Kogan, V. S.) — 485.
- Lazareva, L. E. (see Burgov, N. A.) — 1278L.
- Lebedev, P. I. (see Balats, M. Ya.) — 417.
- Lebedev, S. V., S. L. Mandel'shtam, and G. M. Rodin. Shortwave Radiation from a Vacuum Spark — 248.
- Lemberg, I. Kh. (see Alkhazov, D. G.) — 1086.
- Lend'el, V. I. (see Lomsadze, Yu. M.) — 955.
- Lepekhin, F. G. (see Berkovich, I. B.) — 428.
- Levitin, R. Z. (see Belov, K. P.) — 670.
- (see Belov, K. P.) — 400L.
- Lifshitz, E. M. (see Dzyaloshinskii, I. E.) — 161.
- Lifshitz, I. M. and M. I. Kaganov. Electron Resonance in Crossed Electric and Magnetic Fields — 392L.
- Lille, J. S. (see Fremlin, J. H.) — 229L.
- Lipmanov, É. M. On Two Types of Neutrinos, the Isotopic Spin of Leptons, and the Universal Four-Fermion Interaction — 750.
- Litvinenko, A. S. (see Grishaev, A. N.) — 1031L.
- Lobanov, Yu. V. (see Druin, V. A.) — 26.
- Lobashev, V. M., V. A. Nazarenko, and L. I. Rusinov. Polarization $\beta\gamma$ Correlation in Decay of Co^{60} — 1277L.
- Logunov, A. A. (see Bogolyubov, N. N.) — 574.
- Lomnev, S. P. (see Belyaev, V. B.) — 1171.
- Lomsadze, Yu. M., V. I. Lend'el, and B. M. Érnst. On the Anomalous Magnetic Moment of Nucleons in Chew's Method — 955.
- Los', F. S. On the Phase of the Scattered Wave (A Reply to V. V. Malyarov) — 836L.
- Luk'yanov, S. Yu. and I. M. Podgorniy. Magnetic Trap with Field Increasing toward Periphery — 18.
- Lysov, B. A. Polarization Effects in the Direct Transition of μ^+ into an Electron-Positron Pair — 404L.
- Lyubimov, G. A. (see Kulikovskii, A. G.) — 835L.
- Lyubimov, V. B., P. M. Markov, É. N. Tsyganov, Cheng P'u-Ying, and M. G. Shafranov. Elastic Proton-Proton Scattering at 8.5 BeV — 651.
- (see Bannik, B. P.) — 1118.
- (see Bogachev, N. P.) — 872.
- Lyuboshitz, V. L. Polarization Phenomena in Radiative Collisions of Two Electrons — 1221.
- Lyul'ka, V. A. and V. A. Filimonov. Contribution of Three-Particle Forces to the Binding Energy of Hyper-Nuclei — 1015.
- Mak, A. A. Concentration of Charged Particles in Plasma of Spark-discharge Channel — 1055L.
- Maksimov, V. M. (see Zhdanov, G. B.) — 442.
- Maksimov, M. Z. Range-Energy Relation for Some

- Substances — 90.
- Mal'tsev, V. M. (see Barashenkov, V. S.) — 630L.
- (see Barashenkov, V. S.) — 1052L.
- Mamasakhlisov, V. I. and T. I. Kopaleishvili. Inelastic Scattering of Nucleons of Mg^{24} and Si^{28} Nuclei — 93.
- and T. I. Kopaleishvili. On the Rotational Levels of Li^7 — 807L.
- Mandel'shtam, S. L. (see Lebedev, S. V.) — 248.
- Manenkov, A. A. (see Piskunov, A. K.) — 213L.
- Marek, I. and I. Ulehla. Concerning Anomalous Equations for Spin $\frac{1}{2}$ Particles — 1051L.
- Marish, K. S. (see Akimov, Yu. K.) — 33.
- Markov, P. K. (see Lyubimov, V. B.) — 651.
- (see Zhdanov, G. B.) — 433.
- Matinyan, S. G. Parity Conservation in Strong Interactions of Strange Particles — 736.
- Matyash, I. V. (see Galkin, A. A.) — 1292L.
- Mekhedov, V. N. (see Borisova, N. L.) — 261.
- Merekov, Yu. P. (see Borogachev, N. P.) — 872.
- Meshkovskii, A. G. and Ya. Ya. Shalamov. Inelastic Interaction of π^+ Mesons with Light Nuclei in the Energy Region 80 — 300 Mev — 697.
- (see Krestnikov, Yu. S.) — 622L.
- Metskhvarishvili, R. Ya. (see Kel'man, B. M.) — 456.
- Migdal, A. B. Superfluidity and the Moments of Inertia of Nuclei — 176.
- Mikaelyan, L. A. and P. Ya. Spivak. Measurement of the Degree of Longitudinal Polarization of Beta Particles — 831L.
- Mikhailov, G. V. Effect of Pressure on the Raman Spectrum of Oxygen — 1114.
- Mikheev, V. L., N. K. Skobelev, V. A. Druin, and G. N. Flerov. Spontaneous Fission of Am^{241} — 612L.
- Mikhul, É. K. (see Barashenkov, V. S.) — 1052L.
- Mishakova, A. P. and B. A. Nikol'skii. Angular Distribution of Shower Particles in Explosion Showers Produced by High-Energy Cosmic-Ray Particles — 1130.
- (see Tumanyan, V. A.) — 253.
- Mitin, N. A. (see Grigor'ev, E. L.) — 295.
- (see Grigor'ev, E. L.) — 1123.
- Mitrofanov, K. P. (see Bedescu, A.) — 221L.
- Mitske, A. I. (see Turov, E. A.) — 801.
- Mitskevich, N. V. (see Ivanenko, D. D.) — 618L.
- Molisev, S. S. On the Distribution Function for Dissipative Processes in a Rarefied Relativistic Gas — 391L.
- Moskalev, A. N. (see Dolginov, A. Z.) — 1202.
- Moskalev, V. I. (see Budagov, Yu. A.) — 625L.
- Motulevich, G. P. On the Connection between the Optical Constants of Metals and their Microscopic Characteristics — 1249.
- Mukhtarov, A. I. (see Kerimov, B. K.) — 407L.
- Murtazin, F. Sh. (see Berlovich, E. É.) — 855.
- Murzin, V. S. (see Alekseeva, K. I.) — 422.
- Myasodov, B. F. (see Guseva, L. I.) — 694.
- (see Volkov, V. V.) — 859.
- Nazarenko, V. A. (see Lobashev, V. M.) — 1277L.
- Nedlin, G. M. (see Bychkov, Yu. A.) — 377.
- (see Gurevich, L. É.) — 546.
- Nesterov, V. G. (see Kuz'minov, B. D.) — 290.
- Neudachin, V. G., Yu. F. Smirnov, and N. P. Yudin. Clustering of Nucleons in Light Nuclei — 1256.
- , I. B. Teplov, and A. F. Tulnov. Use of the (d, p) Reaction to Excite States with Large Spins — 387L.
- (see Balashov, V. V.) — 983.
- Nikanorov, S. P. and A. V. Stepanov. The Temperature Dependence of the Elastic Constants of Potassium Bromide — 1280.
- Nikolaev, F. A. (see Burgov, N. A.) — 1278L.
- Nikol'skii, B. A. (see Gurevich, I. I.) — 225L.
- (see Mishakova, A. P.) — 1130.
- Nikol'skii, S. I. (see Zatselin, G. T.) — 138.
- Nosov, V. G. On the Determination of Nuclear Deformation from the Alpha-decay Fine Structure — 631L.
- Novikov, V. M. (see Zaretskii, D. F.) — 1287L.
- Novikova, G. I., E. A. Volkova, L. L. Gol'din, D. M. Ziv, and E. F. Tret'yakov. Radioactive Decay of Ac^{227} and Excited Levels of Fr^{223} and Th^{227} — 663.
- (see Gol'din, L. L.) — 822L.
- (see Tret'yakov, E. F.) — 656.
- Novikova, S. I. (see Astrov, D. N.) — 851.
- Nurushev, S. B. Determination of the p-p Scattering Matrix at 90° — 212L.
- Obukhov, Yu. V. (see Balats, M. Ya.) — 417.
- Ogievetskiĭ, V. I. and I. V. Polubarinov. Wave Equations with Zero and Nonzero Rest Masses — 335.
- (see Chou Kuang-Chao) — 616L.
- Ogloblin, A. A. (see Vlasov, N. A.) — 39.
- (see Vlasov, N. A.) — 844.
- Oiglane, H. Note on a Baryon Scheme — 394L.
- Okun', L. B. and E. P. Shabalin. On $K_{\alpha\beta}$ Decay — 1252.
- Onishchenko, I. N. (see Grishaev, I. A.) — 1031L.
- Oran'skii, A. N. (see Basov, N. G.) — 761.
- Oranov, I. V. (see Yurasova, V. E.) — 689.
- Orlov, Yu. V. On the Theory of the Direct Nuclear Photo-effect — 1294L.
- Orlova, M. P. (see Astrov, D. N.) — 851.
- Ospinkov, V. T. (see Ivanov, V. G.) — 615L.
- Ostroumov, V. I. and R. A. Filov. Knock-On Alpha Particles Produced by Fast Nucleons — 459.
- (see Ivanova, N. S.) — 1137.
- Ostavnov, P. S. Polarization of (d-d) Neutrons — 1281L.
- Otvinnikovskii, S. Z. (see Laberrigue-Frolova, J. V.) — 452.
- Ovsyanikova, I. A. (see Borovskii, I. B.) — 1033L.
- Pacheva, I. Kh. (see Kaliteevskii, N. I.) — 629L.
- Pavlov, Yu. V. (see Ivanova, N. S.) — 1137.
- Pekar, S. I. (see Dykman, I. M.) — 361.
- Peletminskii, S. V. Coupled Magnetoelastic Oscillations in Antiferromagnetics — 321.
- (see Volkov, D. V.) — 121.
- Perel', V. I. (see Konstantinov, O. V.) — 560.
- Perelygin, V. P., E. D. Donets, and G. N. Flerov. Experiments in the Production of a New Fermium Isotope — 1106.
- Perfilov, N. A. and Z. I. Solov'eva. Angular Distribution of Long-range Alpha Particles — 824L.
- (see Darovskikh, V. F.) — 921.
- Peshkov, V. P. (see Zinov'eva, K. N.) — 22.
- Peterkov, R. K. On the Inclusion of Exchange in the Theory of Collisions — 834L.
- Petrov, N. I., V. G. Ivanov, and V. A. Rusakov. Inelastic Scattering and Absorption of (195 $\pm$ 15)-Mev Positive Pions by Carbon and Lithium Nuclei — 682.
- (see Ivanov, V. G.) — 615L.
- Petrov, Yu. V. Possibility of Investigating the Levels of

- the Compound Nucleus Produced by Interaction between Slow Neutrons and Isomers — 833L.
- Petukhova, N. I. (see Kopylova, D. K.) — 203.
- Pikel'ner, S. B. Gravitational Attenuation of Sound — 1290L.
- Piliya, A. D. Excitation of Vibrational Levels in Nuclei by Charged Particles — 1018.
- On the Cross Section for Compound-Nucleus Formation by Charged Particles — 413L.
- Pinnau, V. S. (see Gandel'man, G. M.) — 764.
- Pirkin, I. A. (see Tsenter, E. M.) — 806L.
- Pirogova, N. I. (see Gol'din, L. L.) — 822L.
- (see Tret'yakov, E. F.) — 656.
- Piskunov, A. K., A. A. Manenkov, and Z. A. Bagdasar'yan. Paramagnetic Resonance in Potassium Ozonide — 213L.
- Pitaevskii, L. P. Attraction of Small Particles Suspended in a Liquid at Large Distances — 408L.
- On the Superfluidity of Liquid He³ — 1267.
- (see Dzyaloshinskii, I. E.) — 161.
- Pleshchikov, N. V. Sputtering of Copper by Hydrogen Ions Possessing Energies up to 50 keV — 878.
- (see Yurasova, V. E.) — 689.
- Pleve, A. A. (see Karamyan, A. S.) — 467.
- Podgoretskii, M. I. (see Bannik, B. P.) — 1118.
- (see Bogachev, N. P.) — 872.
- (see Gol'danskii, V. I.) — 223L.
- (see Kopylova, D. K.) — 203.
- Podgornyi, I. M. (see Luk'yanov, S. Yu.) — 18.
- Podlubnyi, L. I. The Non-Additivity of London-Van der Waals Forces — 633L.
- Polikanov, S. M. (see Druin, V. A.) — 26.
- Polovin, R. V. (see Akhiezer, I. A.) — 539.
- Polubarinov, I. V. (see Ogievetskii, V. I.) — 335.
- Pomanski, A. A. (see Zatsen, B. T.) — 138.
- Pomeranchuk, I. Ya. (see Galanin, A. D.) — 1179.
- (see Garibyan, G. M.) — 1290L.
- Pontecorvo, B. Electron and Muon Neutrinos — 1236.
- Popov, V. S. On the Theory of the Relativistic Transformations of the Wave Functions and Density Matrix of Particles with Spin — 794.
- Popov, Yu. M. (see Basov, N. G.) — 416L.
- Popova, A. M. (see Vasil'ev, S. S.) — 1034L.
- Preobrazhenskii, B. K. (see Kel'man, V. M.) — 456.
- Presperin, V. (see Kul'chitskii, L. A.) — 1082.
- Prokhorov, A. M. (see Antonov-Romanovskii, V. V.) — 1039L.
- Prokhorova, L. I. (see Kuz'minov, B. D.) — 290.
- Pustovoi, V. I. On Linear Theories of Gravitation — 619L.
- Rabin, N. V. (see Vaisenberg, A. O.) — 231L.
- Rabinovich, E. M. (see Zel'dovich, Ya. B.) — 924.
- Rabinovich, M. S. (see Iogansen, L. V.) — 83.
- Raizer, M. D. and S. E. Grebenshchikov. Localization of a High-Frequency Induction Discharge — 398L.
- Raizer, Yu. P. Condensation of a Cloud of Vaporized Matter Expanding in Vacuum — 1229.
- Residual Ionization of a Gas Expanding in Vacuum — 411L.
- Simple Method for Computing the Mean Range of Radiation in Ionized Gases at High Temperatures — 769.
- Rapoport, L. P. and S. G. Kadenskii. Distribution of the Density of Protons in a Nucleus with a Given Angular Momentum — 929.
- Rigler, S. A. On Convective Motion of a Conducting Fluid between Parallel Vertical Plates in a Magnetic Field — 149.
- Rikenglaz, L. E. (see Kucherov, R. Ya.) — 1285L.
- (see Kucherov, R. Ya.) — 88.
- Ritus, V. I. Angular and Polarization Analyses of Reactions of the Type $a + b \rightarrow a' + b' + c$ — 153.
- Rodin, G. M. (see Lebedev, S. V.) — 248.
- Romanov, V. A. (see Kel'man, V. M.) — 456.
- Romanovskii, E. A. Excitation of Nuclear Vibrational and Rotational States in the Scattering of Charged Particles — 59.
- Excitation of Rotational States of Nonaxial Nuclei in Alpha-particle Scattering — 606L.
- Rudakov, L. I. and R. Z. Sagdeev. Oscillations of an Inhomogeneous Plasma in a Magnetic Field — 952.
- Rudenko, N. S. (see Bogoyavlenskii, I. V.) — 884.
- Rukhadze, A. A. (see Bolotovskii, B. M.) — 958.
- Rumer, Yu. B. A Simple Model in the Theory of Superconductivity — 409L.
- Rusakov, S. V. (see Belousov, A. S.) — 1143.
- Rusakov, V. A. (see Ivanov, V. G.) — 615L.
- (see Petrov, N. I.) — 682.
- Rusinov, L. I. (see Golenetskii, S. V.) — 395L.
- (see Lobachev, V. M.) — 1277L.
- Rus'kin, V. I. π^+p Interaction at 1.4 Bev — 74.
- Ryabenko, G. A. (see Brandt, N. B.) — 278.
- Ryndin, R. M. (see Bilen'kii, S. M.) — 1241.
- Sagdeev, R. Z. (see Rudakov, L. I.) — 952.
- Samolov, A. V. (see Askar'yan, G. A.) — 1041L.
- Samolov, I. M. Capture Mechanism in Betatrons — 504.
- Samolov, L. N. (see Artemov, K. P.) — 841.
- (see Artemov, K. P.) — 474.
- Sanikidze, D. G. Hydrodynamics of Solutions of Strange Particles in Helium II near the λ Point — 226L.
- San'ko, L. A., Zh. S. Takibaev, Ts. I. Shakhova, and L. Ya. Balats. Angular Distribution of Shower Particles in Stars Produced by High-Energy Particles — 1.
- Savchenko, M. K. (see Kirenskii, L. V.) — 437.
- Savchenko, O. V. (see Akimov, Yu. K.) — 33.
- Savin, F. D. (see Alekseeva, K. I.) — 422.
- Semenov, E. E. (see Lazarev, B. G.) — 1035L.
- Sergeev, F. M. (see Kirillov-Ugryumov, V. G.) — 907.
- Shabalin, E. P. (see Okun', L. B.) — 1252.
- Shafranov, V. D. Equilibrium of a Plasma Toroid in a Magnetic Field — 775.
- Shafranov, M. G. (see Lyubimov, V. B.) — 651.
- (see Zhdanov, G. B.) — 433.
- Shakhbazyan, V. A. On the Two-charge Renormalization Group in Scalar Quantum Electrodynamics — 1263.
- Shakhova, Ts. I. (see San'ko, L. A.) — 1.
- Shalamov, Ya. Ya. (see Krestnikov, Yu. S.) — 622L.
- (see Meshkovskii, A. G.) — 697.
- Shal'nikov, A. I. (see Arkhipov, R. G.) — 888.
- (see Ginzburg, N. I.) — 285.
- Shapiro, I. S. and L. D. Blokhintsev. Circular Polariza-

- tion of Gamma Quanta Emitted by a Nucleus after μ^- Capture — 542.
- Shcherbakova, M. N. (see Zhdanov, G. B.) — 442.
- Shebanov, V. A. (see Shalamov, Ya. Ya.) — 622L.
- Shelepin, L. A. Contribution to the Theory of Relativistically Invariant Equations — 1153.
- Shestopalova, S. A. (see Dzelepov, B. S.) — 611L.
- Shestopov, V. Ya. (see Grigorov, N. L.) — 816L.
- Shirkov, D. V. On Taking the Coulomb Effects into Account in the Theory of Superconductivity — 127.
- (see Bogolyubov, N. N.) — 574.
- Shirokov, M. I. On a Symmetry in τ^0 Decay — 232L.
- Shmelev, V. P. Application of the Variational Principle for the Determination of the Binding Energy of a Proton-Electron-Positron System — 325.
- Shmushkevich, I. M. (see Bukhvostov, A. P.) — 1042L.
- Shpinel', V. S. (see Bedesov, A.) — 221L.
- Shramenko, B. I. (see Grishaev, N. A.) — 1031L.
- Shvets, A. D. (see Esel'son, B. N.) — 228L.
- Sidorov, V. M. (see Bogachev, N. P.) — 872.
- Silin, V. P. Collective Losses of Fast Electrons in Passage through Matter — 192.
- (see Zharkov, V. N.) — 102.
- Skobelev, N. K. (see Mikheev, V. L.) — 612L.
- Skobkin, V. S. (see Korneev, E. I.) — 29.
- Skobov, V. G. Scattering of Low-energy Electron by Short-range Potential in Strong Magnetic Field — 1039L.
- Skrotskii, G. V. and A. A. Kokin. On the Influence of Coherent Magnetic Dipole Radiation on Magnetic Resonance — 572.
- (see Kokin, A. A.) — 342.
- Sliv, L. A. and Yu. I. Khartanov. Calculation of Energy Levels of Te^{208} and Bi^{210} Nuclei — 819L.
- Smirenkin, G. N. Comparison of Effective Temperatures of Spectra of Neutrons Emitted in Fission of U^{235} and P^{239} by Fast and Thermal Neutrons — 1286L.
- (see Kuz'minov, B. D.) — 290.
- Smirnit'skii, V. A. (see Valsenberg, A. O.) — 231L.
- Smirnov, Yu. F. (see Balashov, V. V.) — 983.
- (see Neudachin, V. G.) — 1256.
- Smorodin, Yu. A. (see Birger, N. G.) — 964.
- Smorodinskii, Ya. A. (see Bilen'kii, S. M.) — 1241.
- Solov'ev, L. D. and G. N. Tentyukova. Numerical Solution of Static Dispersion Relations of the Photoproduction P-Wave — 634L.
- Solov'eva, V. I. (see Vernov, S. N.) — 1050L.
- Solov'eva, Z. I. (see Perfilov, N. A.) — 824L.
- Solyakin, G. E. (see Vorob'ev, A. A.) — 386L.
- Sorokin, A. A. (see Bedesov, A.) — 221L.
- Soroko, L. M. (see Akimov, Yu. K.) — 33.
- Spivak, P. Ya. (see Mikadlyan, L. A.) — 831L.
- Starodubtsev, S. V. (see Bel'skii, L. A.) — 700.
- Stepanov, A. V. (see Nikanorov, S. P.) — 1280L.
- Stepanova, A. A. (see Zhuravlev, N. N.) — 627L.
- Stolyarova, G. S. (see Tumanyan, V. A.) — 253.
- Strel'tsov, V. N. (see Zhdanov, G. B.) — 433.
- Strugal'skii, Z. S. (see Vernov, S. N.) — 848.
- Strutinskii, V. M. Angular Anisotropy of Gamma Quanta that Accompany Fission — 613L.
- Sudovtsev, A. I. (see Lazarev, B. G.) — 1035L.
- Sukova, L. V. (see Gurevich, I. I.) — 225L.
- Svirina, E. P. (see Belov, K. P.) — 862.
- Svirskii, M. S. (see Vonsovskii, S. V.) — 1060L.
- Szhenov, Yu. K. On the Mechanism of Surface Ionization of Atoms of the Alkali Earth Metals — 239.
- (see Kucheryaev, A. G.) — 412L.
- Takibaev, Zh. S. (see Boos, E. G.) — 206L.
- (see San'ko, L. A.) — 1.
- Tamm, E. I. (see Belousov, A. S.) — 1143.
- Tarantin, N. I. (see Guseva, L. I.) — 694.
- (see Volkov, V. V.) — 859.
- Tarasov, Yu. A. On the Stability of Plane Poiseuille Flow of a Plasma of Finite Conductivity in a Magnetic Field — 1209.
- Tarasov, M. S. (see Brish, A. A.) — 1095.
- Tentyukova, G. N. (see Solov'ev, L. D.) — 634L.
- Tepliv, I. B. (see Neudachin, V. G.) — 387L.
- Ter-Martirosyan, K. A. Incompatibility of the Conditions of Analyticity and Unitarity in the Lee Model — 714.
- Ternov, I. M. and V. S. Tumanov. Effect of Vacuum Fluctuations on the Polarization of Electrons Moving in a Magnetic Field — 809L.
- Ternovskii, F. F. Effect of Multiple Scattering on Pair Production by High-Energy Particles in a Medium — 718.
- Pair Production in Collisions between Charged Particles — 565.
- Tishchenko, B. I. (see Inopin, E. V.) — 939.
- Tishkov, P. G. (see Avvakumov, V. I.) — 1110.
- Titts, T. On the Methods of Born and Pais for Finding Phase Shifts — 207L.
- Toptygin, I. N. (see Batygin, V. V.) — 975.
- (see Dolginov, A. Z.) — 1022.
- Trapeznikova, Z. A. (see Antonov-Romanovskii, V. V.) — 1039L.
- Tret'yakova, E. F., M. P. Anikina, L. L. Gol'din, G. I. Novikova, and N. I. Pirogova. The Spectrum of Internal Conversion Electrons accompanying Alpha Decay of U^{233} , and the Level Scheme of Th^{229} — 656.
- (see Gol'din, L. L.) — 822L.
- (see Novikova, G. I.) — 663.
- Tret'yakova, M. I. (see Zhdanov, G. B.) — 433.
- (see Zhdanov, G. B.) — 442.
- Tsakadze, D. S. (see Andronikashvili, E. L.) — 227L.
- (see Andronikashvili, E. L.) — 397L.
- Tsekhmistrenko, Yu. V. Two-particle Excitations of Superfluid Fermi Systems — 829L.
- Tsenter, E. M., A. G. Khabakhpashev, and I. A. Pirkin. Gamma Rays from a Po-O^{18} Neutron Source — 806L.
- (see Khabakhpashev, A. G.) — 705.
- Tsintsadze, N. L. (see Akhiezer, I. A.) — 539.
- Tsukerman, V. A. (see Brish, A. A.) — 1095.
- Tsukernik, V. M. (see Kaganov, M. I.) — 587.
- Tsyganov, E. N. (see Lyubimov, V. B.) — 651.
- Tuchkevich, V. V. (see Kel'man, V. M.) — 456.
- Tulinov, A. F. (see Neudachin, V. G.) — 387L.
- Tumanov, V. S. (see Ternov, I. M.) — 809L.
- Tumanyan, V. A., G. S. Stolyarova, and A. P. Mishakova. On Direct Production of Electron-Positron Pairs by High-Energy Electrons — 253.
- Turov, E. A. and A. I. Mitsek. On the Theory of the Temperature Dependence of Ferromagnetic Anisotropy — 801.

- Tuvdendorzh, D. (see Bogachev, N. P.) — 872.
- Uchevatkin, I. F. (see Dzelepov, B. S.) — 611L.
- Ulehla, I. (see Marek, J.) — 1051L.
- Urbakh, V. Yu. The Radiative Correction to the Mass of the Electron in Nonlinear Electrodynamics — 208L.
- Ustinova, A. K. Angular Correlation in Internal Conversion, Including Effects of Screening and of the Finite Size of the Nucleus — 216L.
- Vaisenberg, A. O. Space Asymmetry of Low Energy Positrons from $\pi^+ \rightarrow \mu^+ + e^+$ Decay — 401L.
- , V. A. Smirnit-skii, É. D. Kolganova, and N. V. Rabin. Energy Dependence of the Spatial Asymmetry of Positrons in $\pi^+ \rightarrow \mu^+ + e^+$ Decay — 231L.
- Vaks, V. G. On Theories with an Indefinite Metric — 332.
- Valiev, K. A. Theory of Spin-Lattice Quadrupole Relaxation in Liquid Solutions of Diamagnetic Salts — 77.
- Vashakidze, I. Sh., T. I. Kopaleishvili, and G. A. Chilashvili. Resonance Scattering of Gamma Quanta by Mg^{24} — 535.
- Vasilenko, S. S. (see Antonova, S. F.) — 477.
- Vasil'ev, S. S., V. V. Komarov, G. V. Koshelyaev, and A. M. Popova. Angular Distributions of Alpha Particles from the Reaction $C^{12}(p, p^3\alpha)$ — 1034L.
- Vasil'kov, R. G. and B. B. Govorkov. Total Cross Section of Photoproduction of π^0 Mesons on Protons at Low Energies — 224L.
- , B. B. Govorkov, and V. I. Gol'danskii. Photoproduction of π Mesons on Hydrogen by γ Quanta with Energy between the Threshold and 240 Mev — 7.
- , B. B. Govorkov, and V. I. Gol'danskii. Photoproduction of π^0 Mesons from Carbon Near Threshold — 818L.
- Vavilov, V. S., A. A. Gippius, M. M. Gofshkov, and B. D. Kopylovskii. Radiative Recombination in Germanium Crystals Bombarded by Fast Electrons — 15.
- Veklenko, B. A. (see Biberman, L. M.) — 117.
- Vernov, S. N., V. A. Dmitriev, V. I. Solov'eva and G. B. Khristiansen. Energy of the Electron-photon Component of Extensive Atmospheric Showers — 1050L.
- , B. A. Khrenov, and G. B. Khristiansen. Investigation of the High Energy μ -Meson Flux in Extensive Atmospheric Showers — 891.
- , G. V. Kulikov, Z. S. Strugalskii, and G. B. Khristiansen. On the Microstructure of the Core of Extensive Air Showers — 848.
- Viktor, S. (see Budagov, Yu. A.) — 625L.
- Vinokurov, V. M., M. M. Zaripov, and N. R. Yafaev. Fine Structure in the Paramagnetic Resonance Spectrum of Natural Sapphire — 220L.
- Vlasov, K. B. and B. Kh. Ishmukhametov. Rotation of the Plane of Polarization of Elastic Waves in Magnetically Polarized Magnetoelastic Media — 531.
- Vlasov, N. A. and A. A. Ogloblin. (d, t) Reactions on Li^6 , Li^7 , and Be^9 Nuclei — 39.
- , S. P. Kalinin, A. A. Ogloblin, and V. I. Chuev. The (d, t) Reaction on C^{12} , F^{19} , and Al^{27} Nuclei — 844... — (see Artemov, K. P.) — 841.
- Vol'f, Yu. Dispersion Relations for Inelastic Processes Involving K Mesons — 980.
- Volkov, D. V. and S. V. Peletminskii. On the Lagrangian Formalism for Spin Variables — 121.
- Volkov, T. F. Ion Oscillations in a Plasma — 302.
- Volkov, V. V., L. I. Guseva, B. F. Myasoedov, N. I. Tarantin, and K. V. Filippova. Cross Section for Production of Fm^{250} in the Reactions $Pu^{241}(C^{13}, 4n)Fm^{250}$ and $U^{238}(O^{16}, 4n)Fm^{250}$ — 859.
- Volkova, E. A. (see Novikova, G. I.) — 663.
- Volynskii, V. Kh. (see Daion, M. I.) — 648.
- Vonsovskii, S. V. and M. S. Svirskii. Effect of Exchange Interaction on the Superconductor Transition Temperature — 1060L.
- Vorob'ev, A. A., A. P. Komar, and V. A. Korolev. Measurement of the Intensity Ratio of Transitions to the First Excited Levels of the Daughter Nuclei in the Decay of U^{238} and U^{234} — 1032L.
- , A. P. Komar, V. A. Korolev, and G. E. Solyakin. Alpha Spectrum of the Natural Samarium Isotope Mixture — 386L.
- Vul, B. M. (see Basov, N. G.) — 416L.
- Wang Ling. Transition Probabilities between Rotational States of Non-Axial Odd Nuclei — 821L.
- Wrzecionko, J. Ultraviolet Asymptotic Value for the Interaction of K Mesons with Baryons — 69.
- Yafaev, N. R. (see Vinokurov, V. M.) — 220L.
- Yakovlev, L. G. Calculation of Phase Integrals in the Covariant Formulation of the Theory of Multiple Production of Particles — 741.
- Yankov, V. V. Dynamics of a Conducting Gaseous Sphere in a Quasi-Stationary Electromagnetic Field — 158.
- Yudin, N. P. (see Balashov, V. V.) — 983.
- (see Neudachin, V. G.) — 1256.
- Yurasova, V. E., N. V. Pleshchitsv, and I. V. Orfanov. Directed Emission of Particles from a Copper Single Crystal Sputtered by Bombardment with Ions up to 50 KeV Energy — 689.
- Zaikin, D. A. Ground States of Nonspherical Odd Nuclei According to the Independent Particle Model — 381.
- Zaitseva, M. A. (see Belov, K. P.) — 825L.
- Zakhar'ev, B. N. (see Belyaev, V. B.) — 1171.
- Zaretskii, D. F. Radiative Capture of Neutrons — 772.
- and V. M. Novikov. Muon Depolarization in Mesic Atoms with Deformed Nuclei — 1287L.
- Zaripov, M. M. (see Vinokurov, V. M.) — 220L.
- Zastavenko, L. G. A Method for Calculation of Phase Volumes — 939.
- Zatsepin, G. T., S. I. Nikol'skii, and A. A. Pomanskii. Decay Processes in the Development of Nuclear Cascades in the Atmosphere — 138.
- Zavaritskii, N. V. Investigation of Thermal Properties of Superconductors. III. Anisotropy of Thermal Conductivity of Gallium — 1069.
- Zel'dovich, Ya. B. On the Masses of the Muon and the Electron — 1283L.
- The Number of Elementary Baryons and the Universal Baryon Repulsion Hypothesis — 403L.
- and E. M. Rabinovich. On the Conditions of Applicability of Statistical Formulas to a Degenerate Fermi Gas — 924.
- Zharkov, G. F. On the Intermediate State of Ferromagnetic Superconductors — 1259.
- Zharkov, V. N. and V. P. Silin. Theory of Weak Solutions of He^4 in Liquid He^3 — 102.
- Zhdanov, A. P. and P. I. Fedotov. Results of a Study of

- the Disintegration of Carbon Nuclei by 660-Mev Protons — 280.
 — (see Berkovich, I. B.) — 428.
 Zhdanov, G. B., V. M. Maksimenko, M. I. Tret'yakova, and M. N. Shcherbakova. Nuclear Interactions of 8.7-Bev Protons in Photographic Emulsions — 442.
 —, P. K. Markov, V. N. Strel'tsov, M. I. Tret'yakova, Cheng P'u-Ying, and M. G. Shafranov. Secondary Stars Created by the Interaction of 8.7 Bev Protons with Photoemulsion Nuclei — 433.
 Zhirnov, N. I. Quasiclassical Solutions of the Radial Dirac Equations — 1148.
 Zhizhin, E. D. Scattering of a Proton by a Nucleon in the One-Meson Approximation — 707.
 Zhumartbaev, M. T. Absorption of Sound and the Width of Shock Waves in Relativistic Hydrodynamics — 711.
 Zhuravlev, N. N., A. A. Stepanova, and N. I. Zyuzin. On the Superconductivity of the Compound BiPt — 627L.
 Zil'berman, G. E. On the Zone Energy Spectrum in the Presence of a Magnetic Field — 1029.
 Zinov'eva, K. N. and V. P. Peshkov. Phase Diagram for Liquid He³-He⁴ Solutions — 22.
 Ziv, D. M. (see Novikova, G. I.) — 663.
 Zlafev, I. S. and P. S. Isaev. Dispersion Relations for the Virtual Compton Effect — 519.
 — and P. S. Isaev. Use of Dispersion Relations for a Test of Quantum Electrodynamics at Small Distances — 826L.
 Zyuzin, N. I. (see Zhuravlev, N. N.) — 627L.

Analytic Subject Index to Volume 37 (10)

References with L are Letters to the Editor. Items are listed under the following categories:

- Acoustics
 Astrophysics
 Atomic and Molecular Beams
 Atomic Mass and Abundance
 Atomic Structure and Spectra
 Biographical Material
 Cosmic Radiation
 Crystalline State
 Dielectrics and Dielectric Properties
 Diffraction
 Diffusion
 Elasticity and Plasticity
 Electrical Conductivity and Resistance
 Electrical Discharges
 Electrical Properties
 Electromagnetic Theory and Electrodynamics
 Electrons and Positrons
 Elementary Particle Interactions
 Field Theory
 Films, Properties
 Fluid Dynamics
 Gamma Rays
 Gases
 Helium, Liquid
 Imperfections in Solids
 Ionization
 Ions
 Ions and Electrons, Mobility
 Liquids
 Luminescence
 Magnetic Properties
 Magnetic Resonance
 Mathematical Methods
 Mechanics
 Mesons and Hyperons
 Methods and Instruments
 Microwaves
 Miscellaneous
 Molecular Structure and Spectra
 Neutrino
 Nuclear Fission
 Nuclear Moments and Spin
 Nuclear Photoeffects
 Nuclear Reactions, General
 Nuclear Reactions Induced by α Particles and He^3
 Nuclear Reactions Induced by Deuterons and Tritons
 Nuclear Reactions Induced by Mesons
 Nuclear Reactions Induced by Neutrons
 Nuclear Reactions Induced by Protons
 Nuclear Spectra
 Nuclear Structure Theory
 Optical Properties
 Quantum Electrodynamics
 Quantum Mechanics
 Radiation
 Radioactivity
 Range and Energy Loss of Particles
 Relativity and Gravitation
 Scattering, General
 Scattering of α Particles
 Scattering of Deuterons
 Scattering of Electrons and Positrons
 Scattering of Mesons
 Scattering of Neutrons
 Scattering of Protons
 Semiconductors
 Spectra, General
 Statistical Mechanics and Thermodynamics
 Superconductivity
 Thermal Properties
 X-rays

Absorption of Radiation (see Radiation)**Acoustics**

- Absorption of Sound and the Width of Shock Waves in Relativistic Hydrodynamics. M. T. Zhumartbaev — 711.
 Anomalies in Internal Friction and Modulus of Elasticity in Ferromagnetics near the Curie Point. K. P. Belov, G. I. Kataev, and R. Z. Levitin — 670.
 Coupled Magnetoelastic Oscillations in Antiferromagnetics. S. V. Peletninskii — 321.
 Gravitational Attenuation of Sound. S. B. Pikel'ner — 1290L.
 Oscillations in the Absorption Coefficient of Sound in Tin at Low Temperatures. A. A. Galkin and A. P. Korolyuk — 219L.

Ultrasonic Absorption in Metals in a Magnetic Field. V. L. Gurevich — 1190.

Afterglow (see Electrical Discharges)**Alloys** (see Crystalline State)**Annihilation** (see Electrons and Positrons)**Antiferroelectric Phenomena** (see Dielectrics and Dielectric Properties)**Antiferromagnetism** (see Magnetic Properties)**Arcs** (see Electric Discharges)**Astrophysics**

- Emission of Neutrino Pairs by Electrons and the Role Played by it in Stars. G. M. Gandel'man and V. S. Pinaev — 764.
 Gravitational Attenuation of Sound. S. B. Pikel'ner — 1290L.

Mechanism for the Production of Relativistic Electrons in the Atmospheres of Nonstationary Stars. I. M. Gordon - 608L.

Residual Ionization of a Gas Expanding in Vacuum. Yu. P. Raizer - 411L.

Atomic and Molecular Beams

Experiments in the Production of a New Fermium Isotope. V. P. Pereygin, E. D. Donets, and G. N. Flerov - 1106.

Measurements of Nuclear Magnetic Moments in the Alkali Earths by Molecular Beam Magnetic Resonance. A. G. Kucheryaev, Yu. K. Szhenov, and Sh. M. Gogichashvili - 412L.

Nuclear Reactions Induced by Heavy Ions. J. H. Fremlin and J. S. Lille - 229L.

Use of Slow Molecules in a Maser. N. G. Basov and A. N. Oraevskii - 761.

Atomic Mass and Abundance

Effect of Temperature on the Variation of the Isotopic Composition of Liquid Mercury in the Electric Field of a Constant Current. I. V. Bogoyavlenskii, V. N. Grigor'ev, and N. S. Rudenko - 884.

Experiments in the Production of a New Fermium Isotope. V. P. Pereygin, E. D. Donets, and G. N. Flerov - 1106.

Isotopic Masses and Binding Energies of Nuclei for Masses between 186 and 196. R. A. Demirkhanov, T. I. Gutkin, and V. V. Dorokhov - 866.

Possible Method of Identifying New Transuranic Elements. V. I. Gol'danskii and M. I. Podgoretskii - 223L.

Atomic Structure and Spectra

Effect of Pressure on the Raman Spectrum of Oxygen. G. V. Mikhailov - 1114.

Forbidden Transitions in the Deformed Tm^{188} Nucleus. É. E. Berlovich, V. N. Klement'ev, V. G. Fleisher, O. V. Larionov, F. M. Murtazhin, and D. A. Apostolov - 855.

Maximum Atomic Cross Sections for Nonresonance Charge Exchange. N. V. Fedorenko and V. A. Belyaev - 1276L.

On the Determination of Nuclear Deformation from the Alpha-Decay Fine Structure. V. G. Nosov - 631L.

On the Inclusion of Exchange in the Theory of Collisions. R. K. Peterkop - 834L.

Optical Anisotropy of Atomic Nuclei. A. M. Baldin - 142.

Quasiclassical Solutions of the Radial Dirac Equations. N. I. Zhirnov - 1148.

Radiative Processes Ahead of a Shock-Wave Front. L. M. Biberman and B. A. Veklenko - 117.
The Proton Subshell $Z = 100$. N. N. Kolesnikov and A. P. Krylova - 389L.

Auger Effect (see Atomic Structure and Spectra)

Barkhausen Effect (see Magnetic Properties)

Biographical Material

Academician Nikolai Nikolaevich Bogolyubov (On the Occasion of His Fiftieth Birthday) - 235.

Boson Theory (see Radiation)

Broadening of Spectral Lines (see Atomic Structure and Spectra; Spectra, General)

Capture Cross Sections (see Electrons and Positrons; Nuclear Reactions, General; Radiation)

Nuclear Reactions, General; Radiation)

Cerenkov Effect (see Radiation)

Chemiluminescence (see Luminescence)

Cold Emission (see Electrical Properties)

Compton Effect (see Radiation)

Conductivity, Electrical (see Electrical Conductivity and Resistance)

Cosmic Radiation

Angular Distribution of Shower Particles in Explosion Showers Produced by High-energy Cosmic-ray Particles. A. P. Mishakova and B. A. Nikol'skii - 1130.

Angular Distribution of Shower Particles in Stars Produced by High-energy particles. L. A. San'ko, Zh. S. Takibaev, Ts. I. Shakhova, and L. Ya. Balats - 1.

Decay Processes in the Development of Nuclear Cascades in the Atmosphere. G. T. Zatsenpin, S. I. Nikol'skii, and A. A. Pomanskii - 138.

Energy of the Electron-photon Component of Extensive Atmospheric Showers. S. N. Vernov, V. A. Dmitriev, V. I. Solov'eva, and G. B. Khristiansen - 1050L.

Heavy Nuclei Flux in the Primary Cosmic Radiation at a Geomagnetic Latitude of 31° N. K. I. Alekseeva and N. L. Grigorov - 271.

Investigation of a Shower Consisting of 200,000 Particles and Recorded in a Nuclear Photographic Plate. N. L. Grigorov and M. A. Kondrat'eva - 489.

Investigation of High-energy Nuclear-active Particles at Sea Level. V. A. Dmitriev, G. V. Kulikov, and G. B. Khristiansen - 637.

Investigation of Pion Production in Interactions of Cosmic-ray Protons and α Particles with Carbon Nuclei in the Stratosphere. K. I. Alekseeva, S. I. Brikker, N. L. Grigorov, V. S. Murzin, and F. D. Savin - 422.

Investigation of the High Energy Meson Flux in Broad Atmospheric Showers. S. N. Vernov, B. A. Khrenov, and G. B. Khristiansen - 891.

Mechanism for the Production of Relativistic Electrons in the Atmospheres of Nonstationary Stars. I. M. Gordon - 608L.

On an Estimate of Energy Characteristics of Shower Producing Particles. É. G. Boos and Zh. S. Takibaev - 206L.

On Certain Singularities in the Interaction with Light Nuclei of Particles with Energies $E \geq 2 \times 10^{12}$ ev. N. L. Grigorov and V. Ya. Shestoporov - 816L.

On the Measurement of the Momentum of Fast Particles and the Investigation of Nuclear Interaction in the $10^{10} - 10^{12}$ ev Energy Range. M. I. Daion and V. Kh. Volynskii - 648.

On the Microstructure of the Core of Extensive Air Showers. S. N. Vernov, G. V. Kulikov, Z. S. Strugal'skii, and G. B. Khristiansen - 848.

On the Theory of the Passage of the Nuclear Cascade Through the Atmosphere. I. P. Ivanenko - 744.

Production of K^+ Mesons by Cosmic-ray Protons at 3250 m Above Sea Level. M. Ya. Balats, P. I. Lebedev, and Yu. V. Obukhov - 417.

Cosmology (see Relativity and Gravitation)

Critical Potentials (see Atomic Structure and Spectra)

Cross Section (see Electrons and Positrons; Nuclear Reactions, General; Scattering, General)

Crystal Counters (see Methods and Instruments)

Crystalline State (see also Electrical Properties; Magnetic Properties; Semiconductors; etc.)

Anomalous Heat Capacity and Nuclear Resonance in Crystalline Hydrogen in Connection with New Data on Its Structure. S. S. Dukhin - 1054L.

Contribution to the Theory of Spin-lattice Relaxation of Nuclear Spins in Ionic Crystals. B. I. Kochelaev - 171.

Diffraction of X-rays by Polycrystalline Samples of Hydrogen Isotopes. V. S. Kogan, B. G. Lazarev, and R. F. Bulatova - 485.

Discrete Electron Energy Losses and Secondary Emission from CdO. N. B. Gornyi - 242.

Dispersion of Electromagnetic Waves in Crystals. V. M. Agranovich - 307.

Electron Resonance in Crossed Electric and Magnetic Fields. I. M. Lifshitz and M. I. Kaganov - 392L.

Magnetostriction of Antiferromagnetic Nickel Monoxide. K. P. Belov and R. Z. Levitin - 400L.

Mutual Solubility of Hydrogen and Deuterium at 4.2°K. R. F. Bulatova, V. S. Kogan, and B. G. Lazarev - 1058L.

Nonresonance Absorption of Oscillating Magnetic Field Energy by a Ferromagnetic Dielectric. M. I. Kaganov and V. M. Tsukernik - 587.

On the Structure of Solid Hydrogen. A. A. Galkin and I. V. Matyash - 1292L.

On the Superconductivity of the Compound BiPt. N. N. Zhuravlev, A. A. Stepanova, and N. I. Zyuzin - 627L.

On the Zone Energy Spectrum in the Presence of a Magnetic Field. G. E. Zil'berman - 1029.

Paramagnetic Resonance in Magnetically Dilute Systems. N. S. Garif'yanov - 1101.

Radiative Recombination in Germanium Crystals Bombarded by Fast Electrons. V. S. Vavilov, A. A. Gippius, M. M. Gorshkov, and B. D. Kopylovskii - 15.

Rotation of the Plane of Polarization of Elastic Waves in Magnetically Polarized Magnetoelastic Media. K. B. Vlasov and B. Kh. Ishmukhametov - 531.

Superconductivity of Beryllium and its Low-Temperature Polymorphism. B. G. Lazarev, A. I. Sudovtsev, and E. E. Semenenko - 1035L.

Theory of Superconducting Alloys in a Strong Magnetic Field Near the Critical Temperature. L. P. Gor'kov - 998.

Thermoelectric Coefficients of Metals in Strong Magnetic Fields and the Effect of Drag of Electrons by Phonons. L. É. Gurevich and G. M. Nedlin - 546.

Topology of the Fermi Surface of Gold. Yu. P. Gaidukov - 913.

Ultrasonic Absorption in Metals in a Magnetic Field. II. V. L. Gurevich - 1190.

Diamagnetism (see Magnetic Properties)**Dielectrics and Dielectric Properties**

Light Waves in Crystals in the Exciton Absorption Region and the Impurity Photoeffect. I. M. Dykman and S. I. Pekar - 361.

Quantum Theory of Spatial Dispersion of Electric and Magnetic Susceptibilities. O. V. Konstantinov and V. I. Perel' - 560.

Raman Scattering of Electromagnetic Waves in Ferro-

magnetic Dielectrics. F. G. Bass and M. I. Kaganov - 986.

Diffraction

Diffraction of X-rays by Polycrystalline Samples of Hydrogen Isotopes. V. S. Kogan, B. G. Lazarev, and R. F. Bulatova - 485.

Diffusion

Effect of Temperature on the Variation of the Isotopic Composition of Liquid Mercury in the Electric Field of a Constant Current. I. V. Bogoyavlenskii, V. N. Grigor'ev, and N. S. Rudenko - 884.

Elasticity and Plasticity

Anomalies in Internal Friction and Modulus of Elasticity in Ferromagnetics Near the Curie Point. K. P. Belov, G. I. Kataev, and R. Z. Levitin - 670.

Coupled Magnetoelastic Oscillations in Antiferromagnetics. S. V. Peletminskii - 321.

Magnetostriction of Antiferromagnetic Nickel Monoxide. K. P. Belov and R. Z. Levitin - 400L.

Rotation of the Plane of Polarization of Elastic Waves in Magnetically Polarized Magnetoelastic Media. K. B. Vlasov and B. Kh. Ishmukhametov - 531.

The Temperature Dependence of the Elastic Constants of Potassium Bromide Single Crystals. S. P. Nikanorov and A. V. Stepanov - 1280L.

Theory of the Stability of Magnetic States of Ferromagnetic Materials in the Magnetization Process. E. I. Kondorskiĭ - 790.

Electrical Breakdown (see Dielectrics and Dielectric Properties; Electrical Discharges)**Electrical Conductivity and Resistance**

Effect of Temperature on the Variation of the Isotopic Composition of Liquid Mercury in the Electric Field of a Constant Current. I. V. Bogoyavlenskii, V. N. Grigor'ev, and N. S. Rudenko - 884.

Electron Resonance in Crossed Electric and Magnetic Fields. I. M. Lifshitz and M. I. Kaganov - 392L.

Hall Effect in Ferrites Near the Curie Temperature. K. P. Belov and E. P. Svirina - 862.

The Anisotropy of Magnetoresistance and the Topology of Fermi Surfaces of Metals. N. E. Alekseevskii and Yu. P. Gaidukov - 481.

Thermoelectric Phenomena in Strong Magnetic Fields in Metals Possessing Various Fermi Surfaces. Yu. A. Bychkov, L. É. Gurevich, and G. M. Nedlin - 377.

Topology of the Fermi Surface of Gold. Yu. P. Gaidukov - 913.

Electrical Discharges

Concentration of Charged Particles in Plasma of Spark-Discharge Channel. A. A. Mak - 1055L.

Convective Pinch Instability. B. B. Kadomtsev - 780.

Dynamics of a Conducting Gaseous Sphere in a Quasi-Stationary Electromagnetic Field. V. V. Yankov - 158.

Effect of Inelastic Collisions on the Velocity Distribution of Electrons. L. M. Kovrizhnykh - 347.

Energy Lost to Radiation in a Gas-Discharge Plasma. V. D. Kirillov - 812L.

Equilibrium of a Plasma Toroid in a Magnetic Field. V. D. Shafranov - 775.

Growth of Electromagnetic Waves in Interpenetrating

- Infinite Moving Media. G. G. Getmantsev - 600.
 Ion Oscillations in a Plasma. T. F. Volkov - 302.
 Localization of a High-Frequency Induction Discharge.
 M. D. Raizer and S. E. Grebenshchikov - 398L.
 Magnetic Trap with Field Increasing toward Periphery.
 S. Yu. Luk'yanov and I. M. Podgorniy - 18.
 Nonlinear Langmuir Electron Oscillations in a Plasma.
 M. V. Konyukov - 570.
 Nonresonance Absorption of Electromagnetic Waves in
 a Magnetoactive Plasma. B. N. Gershman - 497.
 On Equilibrium of a Plasma Under Helical Symmetry.
 B. B. Kadomtsev - 962.
 On the Magnetohydrodynamics of Conducting Fluids.
 S. I. Braginskii - 1005.
 Oscillations of an Electron-ion Plasma. L. M. Kovri-
 zhnikh - 1198.
 Oscillations of an Inhomogeneous Plasma in a Magnetic
 Field. L. I. Rudakov and R. Z. Sagdeev - 952.
 Relativistic Transport Equations for a Plasma. I.
 Yu. L. Klimontovich - 524.
 Shortwave Radiation from a Vacuum Spark. S. V. Lebe-
 dev, S. L. Mandel'shtam, and G. M. Rodin - 248.
 Simple Method for Computing the Mean Range of Radia-
 tion in Ionized Gases at High Temperature. Yu. P.
 Raizer - 769.
 Stability of a Hollow Gas Conductor in a Magnetic Field.
 L. M. Kovrizhnykh - 65.
 The Influence of Collisions between Electrons on Their
 Velocity Distribution in Gases and in Semiconductors
 in an Electric Field. A. V. Gurevich - 215L.
Electrical Properties (see also Dielectrics and Dielectric
 Properties; Electrical Conductivity and Resistance;
 Semiconductors; Superconductivity)
 An Investigation of the Quantized Oscillations in the
 Magnetic Susceptibility of Bismuth at Extremely Low
 Temperatures. N. B. Brandt, A. E. Dubrovskaya, and
 G. A. Kytin - 405L.
 Analysis of Experimental Data Relating to the Surface
 Impedance of Superconductors. A. A. Abrikosov,
 L. P. Gor'kov, and I. M. Khalatnikov - 132.
 Cyclotron Resonance in Indium at 9300 Mcs. P. A.
 Bezuglyi and A. A. Galkin - 1049L.
 Electric Conductivity of the Explosion Products of
 Condensed Explosives. A. A. Brish, M. S. Tarasov,
 and V. A. Tsukerman - 1095.
 Electron Resonance in Crossed Electric and Magnetic
 Fields. I. M. Lifshitz and M. I. Kaganov - 392L.
 Measurement of Energy Loss of Fast Electrons Pen-
 etrating Through Matter. N. A. Grishaev, A. N. Fisun,
 A. S. Litvinenko, V. M. Grizhko, B. I. Shramenko, and
 I. N. Onischenko - 1031L.
 On the Connection between the Optical Constants of
 Metals and Their Microscopic Characteristics. G. P.
 Motulevich - 1249.
 The Anisotropy of Magnetoresistance and the Topology
 of Fermi Surfaces of Metals. N. E. Alekseevskii and
 Yu. P. Gaidukov - 481.
 Thermoelectric Phenomena in Strong Magnetic Fields
 in Metals Possessing Various Fermi Surfaces. Yu. A.
 Bychkov, L. E. Gurevich, and G. M. Nedlin - 377.
 Velocity Distribution of Electrons in a Strong Electric
 Field. L. M. Kovrizhnykh - 989.
Electrodynamics (see Electromagnetic Theory and Elec-
 trodynamics)
Electromagnetic Theory and Electrodynamics
 Attraction of Small Particles Suspended in a Liquid at
 Large Distances. L. P. Pitaevskii - 408L.
 Capture Mechanism in Betatrons. I. M. Samoilov - 504.
 Coherent Electron Radiation in the Synchrotron. II.
 L. V. Iogansen and M. S. Rabinovich - 83.
 Collective Losses of Fast Electrons in Passage Through
 Matter. V. P. Silin - 192.
 Convective Pinch Instability. B. B. Kadomtsev - 780.
 Dispersion of Electromagnetic Waves in Crystals.
 V. M. Agranovich - 307.
 Dynamics of a Conducting Gaseous Sphere in a Quasi-
 stationary Electromagnetic Field. V. V. Yankov
 - 158.
 Effect of Inelastic Collisions on the Velocity Distribution
 of Electrons. L. M. Kovrizhnykh - 347.
 Effect of Multiple Scattering on Pair Production by High-
 Energy Particles in a Medium. F. F. Ternovskii - 718.
 Electron-Resonance in Crossed Electric and Magnetic
 Fields. I. M. Lifshitz and M. I. Kaganov - 392L.
 Equilibrium of a Plasma Toroid in a Magnetic Field.
 V. D. Shafranov - 775.
 Field of a Charged Particle in a Moving Medium. B. M.
 Bolotovskii and A. A. Rukhadze - 958.
 Growth of Electromagnetic Waves in Interpenetrating
 Infinite Moving Media. G. G. Getmantsev - 600.
 Ion Oscillations in a Plasma. T. F. Volkov - 302.
 Limits of Applicability of the Theory of Transition Ra-
 diation. G. M. Garibyan and I. Ya. Pomeranchuk
 - 1290L.
 Localization of a High-frequency Induction Discharge.
 M. D. Raizer and S. E. Grebenshchikov - 398L.
 Magnetic Trap with Field Increasing toward Periphery.
 S. Yu. Luk'yanov and I. M. Podgorniy - 18.
 Motion of Charged Particle in a Rotating Magnetic Field.
 A. P. Kazantsev - 1036L.
 Nonlinear Langmuir Electron Oscillations in a Plasma.
 M. V. Konyukov - 570.
 Nonresonance Absorption of Electromagnetic Waves in
 a Magnetoactive Plasma. B. N. Gershman - 497.
 Convective Motion of a Conducting Fluid between Paral-
 lel Vertical Plates in a Magnetic Field. S. A. Regirer
 - 149.
 On Equilibrium of a Plasma Under Helical Symmetry.
 B. B. Kadomtsev - 962.
 On the Magneto-electrical Effect in Antiferromagnets.
 I. E. Dzyaloshinskii - 628L.
 On the Magnetohydrodynamics of Conducting Fluids.
 S. I. Braginskii - 1005.
 On the Solution of the Kinetic Equation for a Plasma in
 a Variable Magnetic Field. Yu. N. Barabanenkov
 - 305.
 On the Stability of a Low Pressure Plasma. B. B.
 Kadomtsev - 1167.
 On the Stability of Plane Poiseuille Flow of a Plasma
 of Finite Conductivity in a Magnetic Field. Yu. A.
 Tarasov - 1209.
 Oscillations of an Electron-Ion Plasma. L. M. Kovri-
 zhnikh - 1198.
 Oscillations of an Inhomogeneous Plasma in a Magnetic

- Field. L. I. Rudakov and R. Z. Sagdeev - 952.
- Polarization Phenomena in Radiative Collisions of Two Electrons. V. L. Lyuboshitz - 1221.
- Propagation of a Strong Electromagnetic-gravitational Wave in Vacuum. A. S. Kompanets - 1215.
- Quantum Theory of Spatial Dispersion of Electric and Magnetic Susceptibilities. O. V. Konstantinov and V. L. Perel' - 560.
- Raman Scattering of Electromagnetic Waves in Ferromagnetic Dielectrics. F. G. Bass and M. I. Kaganov - 986.
- Simple Waves in the Chew-Goldberger-Low Approximation. I. A. Akhiezer, R. V. Polovin, and N. L. Tsintsadze - 539.
- Stability of a Hollow Gas Conductor in a Magnetic Field. L. M. Kovrizhnykh - 65.
- The Radiative Correction to the Mass of the Electron in Nonlinear Electrodynamics. V. Yu. Urbakh - 208L.
- Thermoelectric Coefficients of Metals in Strong Magnetic Fields and the Effect of Drag of Electrons by Phonons. L. É. Gurevich and G. M. Nedlin - 546.
- Transition Radiation Effects in Particle Energy Losses. G. M. Garibyan - 372.
- Transition Radiation in Waveguides. K. A. Barsukov - 787.
- Ultrasonic Absorption in Metals in a Magnetic Field. I. V. L. Gurevich - 51.
- Use of Slow Molecules in a Maser. N. G. Basov and A. N. Oraevskii - 761.
- Electron Diffraction** (see Scattering of Electrons and Positrons)
- Electron-Optical Effects** (see Optical Properties)
- Electron Optics** (see Methods and Instruments)
- Electrons and Positrons** (see also Electromagnetic Theory and Electrodynamics; Elementary Particle Interaction; Scattering of Electrons and Positrons)
- Application of the Variational Principle for the Determination of the Binding Energy of a Proton-Electron-Positron System. V. P. Shmelev - 325.
- Discrete Electron Energy Losses and Secondary Emission from CdO. N. B. Gornyi - 242.
- Dispersion of Electromagnetic Waves in Crystals. V. M. Agranovich - 307.
- Effect of Inelastic Collisions on the Velocity Distribution of Electrons. L. M. Kovrizhnykh - 347.
- Effect of Multiple Scattering on Pair Production by High-Energy Particles in a Medium. F. F. Ternovskii - 718.
- Effect of Vacuum Fluctuations on the Polarization of Electrons Moving in a Magnetic Field. I. M. Ternov and V. S. Tumanov - 809L.
- Inelastic Collisions Between Fast Polarized Particles and Atoms. V. V. Batygin and I. N. Toptygin - 975.
- Measurement of the Degree of Longitudinal Polarization of Beta Particles. L. A. Mikaelyan and P. Ya. Spivak - 831L.
- Mechanism for the Production of Relativistic Electrons in the Atmospheres of Nonstationary Stars. I. M. Gordin - 608L.
- On Direct Production of Electron-positron Pairs by High-energy Electrons. V. A. Tumanyan, G. S. Stolyarova, and A. P. Mishakova - 253.
- On Lepton Mass. Yu. A. Gol'fand - 1059L.
- On the Inclusion of Exchange in the Theory of Collisions. R. K. Peterkop - 834L.
- On the Solution of the Kinetic Equation for a Plasma in a Variable Magnetic Field. Yu. N. Barabanenkov - 305.
- Pair Production in Collisions Between Charged Particles. F. F. Ternovskii - 565.
- Polarization Effects in the Direct Transition of $\mu^+\mu^-$ into an Electron-positron Pair. B. A. Lysov - 404L.
- Polarization Effects in the $\pi^0 \rightarrow e^+e^- + \gamma$ Decay. B. K. Kerimov, A. I. Mukhtarov, and S. A. Gadzhiev - 407L.
- Polarization Phenomena in Radiative Collisions of Two Electrons. V. L. Lyuboshitz - 1221.
- Scattering of Low-energy Electron by Short-range Potential in Strong Magnetic Field. V. G. Skobov - 1039L.
- Search for Particles with Mass between 6 and 25 Electron Masses. A. S. Belousov, S. V. Rusakov, E. I. Tamm, and P. A. Cerenkov - 1143.
- Space Asymmetry of Low-energy Positrons from $\pi^+ \rightarrow \mu^+ + e^-$ Decay. A. O. Valsenberg - 401L.
- The Spectrum of Internal Conversion Electrons Accompanying Alpha Decay of U^{238} , and the Level Scheme of Th^{229} . E. F. Tret'yakov, M. P. Anikina, L. L. Gol'din, G. I. Novikova, and N. I. Pirogova - 656.
- Theory of Superconducting Alloys in a Strong Magnetic Field Near the Critical Temperature. L. P. Gor'kov - 998.
- Thermoelectric Coefficients of Metals in Strong Magnetic Fields and the Effect of Drag of Electrons by Phonons. L. É. Gurevich and G. M. Nedlin - 546.
- Three-Electron Decay of the Muon. I. I. Gurevich, B. A. Nikol'skii, and L. V. Surkova - 225L.
- Ultrasonic Absorption in Metals in a Magnetic Field. I. V. L. Gurevich - 51.
- Electrons, Scattering** (see Scattering of Electrons and Positrons)
- Electrons, Secondary** (see Electrical Properties)
- Electrostriction** (see Dielectrics and Dielectric Properties)
- Elementary Particle Interactions**
- Angular Asymmetry in (πN) Collisions and $(\pi\pi)$ Interaction. V. S. Barashenkov - 1038L.
- Angular Distribution of Shower Particles in Stars Produced by High-energy Particles. L. A. San'ko, Zh. S. Takibaev, Ts. I. Shakhova, and L. Ya. Balats - 1.
- Angular Distributions of Alpha Particles from the Reaction $C^{12} (p, p'\alpha)$. S. S. Vasil'ev, V. V. Komarov, G. V. Koshelyaev, and A. M. Popova - 1034L.
- Capture of μ^- -Mesons by Light Nuclei. B. L. Ioffe - 113.
- Contribution of Three-particle Forces to the Binding Energy of Hypernuclei. V. A. Lyul'ka and V. A. Filimonov - 1015.
- Contribution to the Theory of Spin-lattice Relaxation of Nuclear Spins in Ionic Crystals. B. I. Kochelaev - 171.
- Decay Processes in the Development of Nuclear Cascades in the Atmosphere. G. T. Zatsenpin, S. I. Nikol'skii, and A. A. Pomanskii - 138.

- Dispersion Relations for Inelastic Processes Involving K Mesons. J. Wolf — 980.
- Dispersion Relations for the Virtual Compton Effect. I. S. Zlatev and P. S. Isaev — 519.
- Effect of Interaction on the Phase Motion of Electrons in a Synchrotron. L. V. Iogansen — 211L.
- Effect of Viscosity in Multiple Production on the Energy Distribution of Secondary Particles. A. A. Emel'yanov and D. S. Chernavskii — 753.
- Elastic Scattering of 8.7 Bev Protons by Photoemulsion Nuclei. B. P. Bannik, V. G. Grishin, M. Ya. Danysh, V. B. Lyubimov, and M. I. Podgoretskii — 1118.
- Elastic Scattering of 630-Mev Neutrons by Protons. N. S. Amaglobeli and Yu. M. Kazarinov — 1125.
- Elastic Scattering of 390-Mev π^+ Mesons from Protons. E. L. Grigor'ev and N. A. Mitin — 1123.
- Electromagnetic Mass of the K Meson. Chou Kuang-Chao and V. I. Ogievetskii — 616L.
- Electron and Muon Neutrinos. B. Pontecorvo — 1236.
- Electron-Electron Scattering and Quantum Electrodynamics at Small Distances. G. V. Avakov — 604L.
- Electron-Electron Scattering Cross Section at High Energies. V. N. Bafer — 1057L.
- Emitters of X-particles with Energies of About 9 and 12 Mev. V. A. Karnaukhov, V. I. Khalizev, and G. N. Fierov — 901.
- Identification of Particles in High Energy Stars. G. I. Kopylov — 393L.
- Inelastic Collisions between Fast Polarized Particles and Atoms. V. V. Batygin and I. N. Toptygin — 975.
- Interaction of 9-Bev Protons with Free and Quasifree Nucleons in Photographic Emulsions. N. P. Bogachev, S. A. Bunyatov, I. M. Gramenitskii, V. B. Lyubimov, Yu. P. Merekov, M. I. Podgoretskii, V. M. Sidorov, and D. Tuvdendorzh — 872.
- Investigation of High-energy Nuclear-active Particles at Sea Level. V. A. Dmitriev, G. V. Kulikov, and G. B. Kristiansen — 637.
- Measurement of the Degree of Longitudinal Polarization of Beta Particles. L. A. Mikaelyan and P. Ya. Spivak — 831L.
- Nonmesonic Decay of Hyperfragments. I. B. Berkovich, A. P. Zhdanov, F. G. Lepekhin, and Z. S. Khokhlova — 428.
- Note on a Baryon Scheme. H. Oigane — 394L.
- Nuclear Interactions of 8.7-Bev Protons in Photographic Emulsions. G. B. Zhdanov, V. M. Maksimenko, M. I. Tret'yakova, and M. N. Shcherbatova — 442.
- On a Certain Possibility of Investigation of the Structure of Nucleons and Nuclei. N. G. Birger and Yu. A. Smorodin — 964.
- On a Certain Possibility of Setting up a System of "Elementary" Particles. I. V. Chuvilo — 994.
- On a Symmetry in π^0 Decay. M. I. Shirokov — 232L.
- On an Estimate of Energy Characteristics of Shower Producing Particles. É. G. Boos and Zh. S. Takibaev — 206L.
- On Direct Production of Electron-positron Pairs by High-energy Electrons. V. A. Tumanyan, G. S. Stolyarova, and A. P. Mishakova — 253.
- On Electromagnetic Corrections in μ -e Decay. V. P. Kuznetsov — 784.
- On K_{e4} Decay. L. B. Okun' and E. P. Shabalin — 1252.
- On Lepton Mass. Yu. A. Gol'fand — 1059L.
- On the Absorption of π^+ Mesons with Energies of About 50 Mev by Carbon Nuclei. J. V. Laberrigue-Frolova, M. P. Balandina, and S. Z. Otvinovskii — 452.
- On the Anomalous Magnetic Moment of Nucleons in Chew's Method. Yu. M. Lomsadze, V. I. Lend'el, and B. M. Ernst — 955.
- On the Calculation of the Interaction Constant in a Non-linear Theory. Ya. I. Granovskii — 135.
- On the Collisions of Nucleons with Large Orbital Angular Momentum. A. D. Galanin, A. F. Grashin, B. L. Ioffe, and I. Ya. Pomeranchuk — 1179.
- On the Determination of the Potential in Quantum Field Theory. M. A. Braun — 582.
- On the Introduction of an "Elementary Length" in the Relativistic Theory of Elementary Particles. Yu. A. Gol'fand — 356.
- On the Massey Parameter in the Theory of Atomic Collisions. G. F. Drukarev — 603L.
- On the Measurement of the Momentum of Fast Particles and the Investigation of Nuclear Interaction in the 10^{10} – 10^{12} ev Energy Range. M. I. Daion and V. Kh. Volynskii — 648.
- On the Possibility of Determining the Amplitude for Charge Exchange Pion-pion Scattering from an Analysis of the $\pi^+ + p = N + \pi^+ + \pi^-$ Reactions near Threshold. A. A. Ansel'm and V. N. Gribov — 354.
- On the Problem of Investigating the Interaction between Mesons and Hyperons. L. I. Lapidus and Chou Kuang-Chao — 199.
- On the Theory of Neutron Beta Decay. S. M. Bilen'kii, R. M. Ryndin, Ya. A. Smorodinskii, and Ho Tso-Hsiu — 1241.
- On Two Types of Neutrinos, the Isotopic Spin of Leptons, and the Universal Four-fermion Interaction. É. M. Lipmanov — 750.
- Parity Nonconservation in Strong Interactions of Strange Particles. S. G. Matinyan — 736.
- Passage of Particles through a Plasma. A. I. Larkin — 186.
- Photoproduction of Neutral π Mesons on Hydrogen by γ Quanta with Energy between the Threshold and 240 Mev. R. G. Vasil'kov, B. B. Govorkov, and V. I. Gol'danskii — 7.
- Photoproduction of π^0 Mesons from Carbon near Threshold. R. G. Vasil'kov, B. B. Govorkov, and V. I. Gol'danskii — 818L.
- π^-p Interaction at 1.4 Bev. V. I. Rus'kin — 74.
- Pionic and Electromagnetic Structure of Nucleons. B. B. Dotsenko — 1048L.
- Polarization Effects in the Direct Transition of $\mu^+\mu^-$ into an Electron-Positron Pair. B. A. Lysov — 404L.
- Potential Barrier Criterion and Stars in Emulsions. P. I. Fedotov — 674.
- Production of K^0 Mesons by Cosmic-ray Protons at 3250 m above Sea Level. M. Ya. Balats, P. I. Lebedev, and Yu. V. Obukhov — 417.
- Relativistic Spherical Functions. A. Z. Dolginov and I. N. Toptygin — 1022.
- Resonance Interaction of Pions. V. S. Barashenkov and V. M. Mal'tsev — 630L.

- Results of a Study of the Disintegration of Carbon Nuclei by 660-Mev Protons. A. P. Zhdanov and P. I. Fedotov — 280.
- Scattering of a Proton by a Nucleon in the One-Meson Approximation. E. D. Zhizhin — 707.
- Secondary Stars Created by the Interaction of 8.7-Bev Protons with Photoemulsion Nuclei. G. B. Zhdanov, P. K. Markov, V. N. Strel'tsov, M. I. Tretyakova, Cheng P'u-Ying, and M. G. Shafranov — 433.
- Space Asymmetry of Low-energy Positrons from $\pi^+ - \mu^+ - e^+$ Decay. A. O. Valsenberga — 401L.
- The Electromagnetic Interaction in the Heisenberg Theory. Ya. I. Granovskii — 314.
- The Formfactor and the Leptonic Decay Probability of the Particle. Ho Tso-Hsiu — 1288L.
- The $\mu - e + \gamma$ and $\mu - e + \nu + \bar{\nu} + \gamma$ Decays. Yu. S. Krestnikov, A. G. Meshkovskii, Ya. Ya. Shalamov, V. A. Shebanov, and I. Yu. Kobzarev — 622L.
- The Number of Elementary Baryons and the Universal Baryon Repulsion Hypothesis. Ya. B. Zel'dovich — 403L.
- Theoretical Interpretation of Inelastic (pp) and (pn) Collisions at 9 Bev Energy. V. S. Barashenkov, V. M. Mal'tsev, and É. K. Mikhail — 1052L.
- The Ultraviolet Asymptotic Value for the Interaction of K Mesons with Baryons. J. Wrzeczonko — 69.
- Three-electron Decay of the Muon. I. I. Gurevich, B. A. Nikol'skii, and L. V. Surkova — 225L.
- Elements** (see Atomic Mass and Abundance)
- Energy Loss of Particles** (see Range and Energy Loss)
- Energy States of Atoms** (see Atomic Structure and Spectra)
- Energy States of Nucleus** (see Nuclear Reactions; Nuclear Spectra; Nuclear Structures)
- Evaporation** (see Liquids)
- Excitation of Atoms** (see Atomic Structure and Spectra)
- Excitation of Nucleus** (see Nuclear Reactions; Nuclear Spectra; Nuclear Structure)
- Faraday Effect** (see Optical Properties)
- Ferroelectric Phenomena** (see Dielectrics and Dielectric Properties)
- Field Emission** (see Electrical Properties)
- Field Theory**
- Analyticity and Unitarity in the Scattering of Scalar Mesons from a Static Nucleon. B. L. Ioffe — 1245.
- Concerning Anomalous Equations for Spin $\frac{1}{2}$ Particles. I. Marek and I. Ulehla — 1051L.
- Dispersion Relations for Inelastic Processes Involving K Mesons. Yu. Vol'f — 980.
- Dispersion Relations for the Scattering of Gamma Quanta by Nucleons. L. I. Lapidus and Chou Kuang-Chao — 1213.
- Dispersion Relations for the Virtual Compton Effect. I. S. Zlatev and P. S. Isaev — 519.
- Effect of Multiple Scattering on Pair Production by High-energy Particles in a Medium. F. F. Ternovskii — 718.
- Electronic Mass of the K Meson. Chou Kuang-Chao and V. I. Ogievetskii — 1161L.
- Incompatibility of the Conditions of Analyticity and Unitarity in the Lee Model. K. A. Ter-Martirosyan — 714.
- On Electromagnetic Corrections in $\mu - e$ Decay. V. P. Kuznetsov — 784.
- On the Analytic Properties of Vertex Parts in Quantum Field Theory. L. D. Landau — 45.
- On the Calculation of the Interaction Constant in a Non-linear Theory. Ya. I. Granovskii — 135.
- On the Collisions of Nucleons with Large Orbital Angular Momentum. A. D. Galanin, A. F. Grashin, B. L. Ioffe, and I. Ya. Pomeranchuk — 1179.
- On the Connection of Isotopic Spin and Strangeness with the Behavior of Spinors under Inversion. A. M. Brodskii and D. D. Ivanenko — 624L.
- On the Determination of the Potential in Quantum Field Theory. M. A. Braun — 582.
- On the Lagrangian Formalism for Spin Variables. D. V. Volkov and S. V. Peletminskii — 121.
- On the Masses of the Muon and the Electron. Ya. B. Zel'dovich — 1283L.
- On the Superfluidity of Liquid He³. L. P. Pitaevskii — 1267.
- On the Theory of Neutron Beta Decay. S. M. Bilen'kii, R. M. Ryndin, Ya. A. Smorodinskii, and Ho Tso-Hsiu — 1241.
- On Theories with an Indefinite Metric. V. G. Vaks — 332.
- Parity Nonconservation in Strong Interactions of Strange Particles. S. G. Matinyan — 736.
- Pionic and Electromagnetic Structure of Nucleons. B. B. Dotenko — 1048L.
- Scattering of a Proton by a Nucleon in the One-Meson Approximation. E. D. Zhizhin — 707.
- The Electromagnetic Interaction in the Heisenberg Theory. Ya. I. Granovskii — 314.
- The Formfactor and the Leptonic Decay Probability of the Particle. Ho Tso-Hsiu — 1288.
- The Non-additivity of London-Van der Waals Forces. L. I. Podlubnyi — 633L.
- The Radiative Correction to the Mass of the Electron in Nonlinear Electrodynamics. V. Yu. Urbakh — 208L.
- The Ultraviolet Asymptotic Value for the Interaction of K Mesons with Baryons. J. Wrzeczonko — 69.
- Two-particle Excitations of Superfluid Fermi Systems. Yu. V. Tsekhmistrenko — 829L.
- Wave Equations with Zero and Nonzero Rest Masses. V. I. Ogievetskii and I. V. Polubarinov — 335.
- Films, Properties**
- Collective Losses of Fast Electrons in Passage through Matter. V. P. Silin — 192.
- Destruction of Superconductivity in Thin Films by Field and Current. N. I. Ginzburg and A. I. Shal'nikov — 285.
- Van der Waals Forces in Liquid Films. I. E. Dzyaloshinskii, E. M. Lifshitz, and L. P. Pitaevskii — 161.
- Fine Structure** (see Atomic Structure and Spectra)
- Fission of Nucleus** (see Nuclear Fission)
- Fluid Dynamics**
- Absorption of Sound and the Width of Shock Waves in Relativistic Hydrodynamics. M. T. Zhuravskii — 711.
- Convective Pinch Instability. B. B. Kadomtsev — 780.
- Effect of Viscosity in Multiple Production on the En-

- ergy Distribution of Secondary Particles. A. A. Emel'yanov and D. S. Chernavskii — 753.
- Equilibrium of a Plasma Toroid in a Magnetic Field. V. D. Shafranov — 775.
- Experimental Investigation of the Harmonic Oscillations of a Disk in Rotating Helium. II. E. L. Andronikashvili and D. S. Tsakadze — 397L.
- Nonlinear Langmuir Electron Oscillations in a Plasma. M. V. Konyukov — 570.
- Convective Motion of a Conducting Fluid between Parallel Vertical Plates in a Magnetic Field. S. A. Regirer — 149.
- On Equilibrium of a Plasma under Helical Symmetry. B. B. Kadomtsev — 962.
- On the Magnetohydrodynamics of Conducting Fluids. S. I. Braginskii — 1005.
- On the Paper of V. A. Belokon': "The Permanent Structure of Shock Waves with Joule Dissipation". A. G. Kulikovskii, and G. A. Lyubimov — 835L.
- On the Stability of a Low-pressure Plasma. B. B. Kadomtsev — 1167.
- On the Stability of Plane Poiseuille Flow of a Plasma of Finite Conductivity in a Magnetic Field. Yu. A. Tarasov — 1209.
- Radiative Processes Ahead of a Shock-wave Front. L. M. Biberman and B. A. Veklenko — 117.
- Simple Waves in the Chew-Goldberger-Low Approximation. I. A. Akhiezer, R. V. Polovin, and N. L. Tsintsadze — 539.
- Some Problems of the Dynamics and Heating of a Conducting Medium in a Magnetic Field. G. S. Golitsyn — 756.
- Superfluidity and the Moments of Inertia of Nuclei. A. B. Migdal — 176.
- The Landau Correction Coefficient in the Determination of the Viscosity of a Liquid. G. A. Gamtsemlidze — 609L.
- Galvanomagnetic Effect** (see Magnetic Properties)
- Gamma Rays**
- Angular Anisotropy of Gamma Quanta that Accompany Fission. V. M. Strutinskii — 613L.
- Angular Correlation of Internal Conversion, Including Effects of Screening and of the Finite Size of the Nucleus. A. K. Ustinova — 216L.
- Electric Quadrupole Gamma Transitions in Even-even Nuclei. N. N. Delyagin — 605L.
- Gamma Rays from a Po-²¹⁰ Neutron Source. É. M. Tsenter, A. G. Khabakhpashev, and I. A. Pirkin — 806L.
- Measurement of the Lifetime of the First Excited State of Ne²¹. A. G. Khabakhpashev and É. M. Tsenter — 705.
- Multipolarities of Gamma Transitions in Tm¹⁶⁹. V. M. Kel'man, R. Ya. Metskhvarishvili, B. K. Preobrazhenskii, V. A. Romanov, and V. V. Tuchkevich — 456.
- Optical Anisotropy of Atomic Nuclei. A. M. Baldin — 142.
- Radioactive Decay of Ag^{110m}. N. M. Anton'eva, A. A. Bashilov, and E. K. Kulakovskii — 1063.
- Resonance Scattering of Gamma Quanta by Mg¹⁴. I. Sh. Vashakidze, T. I. Kopaleishvili, and G. A. Chilashvili — 535.
- Search for Particles with Mass between 6 and 25 Electron Masses. A. S. Belousev, S. V. Rusakov, E. I. Tamm, and P. A. Cerenkov — 1143.
- Small Angle Rayleigh Scattering of Co⁶⁰ Gamma Rays. B. A. Bel'skii and S. V. Starodubtsev — 700.
- The Spectrum of Internal Conversion Electrons Accompanying Alpha Decay of U²³⁸, and the Level Scheme of Th²³². E. F. Tret'yakov, M. P. Anikina, L. L. Gol'din, G. I. Novikova, and N. I. Pirogeva — 656.
- Gases**
- Condensation of a Cloud of Vaporized Matter Expanding in Vacuum. Yu. P. Raizer — 1229.
- Effect of Pressure on the Raman Spectrum of Oxygen. G. V. Mikhailov — 1114.
- Formation of Negative Hydrogen Ions on an Incandescent Tungsten Surface. V. I. Khvostenko and V. M. Dukel'skii — 465.
- Maximum Atomic Cross Sections for Nonresonance Charge Exchange. N. V. Fedorenko and V. A. Belyaev — 1276L.
- On Hydrodynamic Boundary Conditions for Evaporation and Condensation. R. Ya. Kucherov and L. É. Rikenglaz — 88.
- Radiative Processes Ahead of a Shock-wave Front. L. M. Biberman and B. A. Veklenko — 117.
- Residual Ionization of a Gas Expanding in Vacuum. Yu. P. Raizer — 411L.
- Gravitation** (see Relativity and Gravitation)
- Gyromagnetization** (see Magnetic Properties)
- Hall Effect** (see Electrical Conductivity and Resistance; Semiconductors)
- Helium, Liquid**
- Experimental Investigation of the Harmonic Oscillations of a Disk in Rotating Helium. II. E. L. Andronikashvili and D. S. Tsakadze — 397L.
- Hydrodynamics of Solutions of Strange Particles in Helium II near the λ -Point. D. G. Sanikidze — 226L.
- On the Critical Mode in Experiments with an Oscillating Disk in Helium II. G. A. Gamtsemlidze — 678.
- On the Motion of Charges in Liquid Helium II. R. G. Arkhipov and A. I. Shal'nikov — 888.
- On the Question of Critical Velocities for Flow of He II in Capillaries. B. T. Gellikman — 635L.
- On the Superfluidity of Liquid He³. L. P. Pitaevskii — 1267.
- Phase Diagram for Liquid He³-He⁴ Solutions. K. N. Zinov'eva and V. P. Peshkov — 22.
- The Propagation of Oscillations along Vortex Lines in Rotating Helium II. É. L. Andronikashvili and D. S. Tsakadze — 227L.
- The Use of a Superconducting Ring for Registering the Phase Transition in Liquid Helium. B. N. Esel'son and A. D. Shvets — 228L.
- Van der Waals Forces in Liquid Films. I. E. Dzyaloshinskii, E. M. Lifshitz, and L. P. Pitaevskii — 161.
- High Voltage Tubes and Machines** (see Methods and Instruments)
- Hyperfine Structure** (see Atomic Structure and Spectra; Nuclear Moments and Spin)
- Hyperons** (see Mesons and Hyperons)
- Imperfections in Solids**
- Fine Structure in the Paramagnetic Resonance Spec-

- trum of Natural Sapphire. V. M. Vinokurov, M. M. Zarirov, and N. R. Yafaev — 220L.
- On the Superconductivity of the Compound BiPt. N. N. Zhuravlev, A. A. Stepanova, and N. I. Zyuzin — 627L.
- Theory of the Stability of Magnetic States of Ferromagnetic Materials in the Magnetization Process. E. I. Kondorskii — 790.
- Inelastic Scattering** (see Nuclear Reactions; Scattering)
- Instruments** (see Methods and Instruments)
- Internal Conversion** (see Nuclear Spectra)
- Ionization** (see also Electrical Discharges; Range and Energy Loss of Particles)
- Alpha Spectrum of the Natural Samarium Isotope Mixture. A. A. Vorob'ev, A. P. Komar, V. A. Korolev, and G. E. Solyakin — 386L.
- Formation of Negative Hydrogen Ions on an Incandescent Tungsten Surface. V. I. Khvostenko and V. M. Dukel'skii — 465.
- Kinetic Theory of Impact Ionization in Semiconductors. L. V. Keldysh — 509.
- Maximum Atomic Cross Sections for Nonresonance Charge Exchange. N. V. Fedorenko and V. A. Belyaev — 1276L.
- On the Mechanism of Surface Ionization of Atoms of the Alkali Earth Metals — Yu. K. Szenov — 239.
- On Certain Singularities in the Interaction with Light Nuclei of Particles with Energies $E \geq 2 \times 10^{12}$ ev. N. L. Grigorov and V. Ya. Shestoporov — 816L.
- Radiative Processes Ahead of a Shock-wave Front. L. M. Biberman and B. A. Veklenko — 117.
- Shortwave Radiation from a Vacuum Spark. S. V. Lebedev, S. L. Mandel'shtam, and G. M. Rodin — 248.
- Simple Method for Computing the Mean Range of Radiation in Ionized Gases at High Temperatures. Yu. P. Raizer — 769.
- Ionization Potentials of Atoms** (see Atomic Structure and Spectra)
- Ions** (see also Electrical Discharges)
- Emitters of α -Particles with Energies of about 9 and 12 Mev. V. A. Karnaukhov, V. I. Khalizev, and G. N. Flerov — 901.
- Experiments in the Production of a New Fermium Isotope. V. P. Pereylin, E. D. Donets, and G. N. Flerov — 1106.
- Maximum Atomic Cross Section for Nonresonance Charge Exchange. N. V. Fedorenko and V. A. Belyaev — 1276L.
- Measurements of the Transverse Proton Relaxation Time in Aqueous Solutions of Paramagnetic Salts by the Spin-Echo Method — 218L.
- Paramagnetic Resonance in Magnetically Dilute Systems. N. S. Garif'yanov — 1101.
- Resonance Charge Exchange of Doubly Charged Ions in Slow Collisions. I. K. Fetisov and O. B. Firsov — 67.
- Sputtering of Copper by Hydrogen Ions Possessing Energies up to 50 kev. N. V. Pleshivtsev — 878.
- Ions and Electrons, Mobility**
- Hall Effect in Ferrites Near the Curie Temperature. K. P. Belov and E. P. Svirina — 862.
- On the Motion of Charges in Liquid Helium II. R. G. Arkhipov and A. I. Shal'nikov — 888.
- Velocity Distribution of Electrons in a Strong Electric Field. L. M. Kovrizhnykh — 989.
- Isomers, Nuclear** (see Nuclear Spectra)
- Isotopes** (see Atomic Mass and Abundance; Radioactivity)
- Kerr Effect** (see Optical Properties)
- Liquid Helium** (see Helium, Liquid)
- Liquids**
- Concentration Jump in Slow Evaporation of a Mixture. R. Ya. Kucherov and L. É. Rikenglaz — 1285L.
- Experimental Investigation of the Harmonic Oscillations of a Disk in Rotating Helium II. E. L. Andronikashvili and D. S. Tsakadze — 397L.
- Theory of Weak Solutions of He^4 in Liquid He^3 . V. N. Zharkov and V. P. Silin — 102.
- Van der Waals Forces in Liquid Films. I. E. Dzyaloshinskii, E. M. Lifshitz, and L. P. Pitaevskii — 161.
- Luminescence**
- Detection of Ionization of Eu^{2+} in the SrS-Eu , Sm Phosphor by the Paramagnetic Absorption Method. V. V. Antonov-Romanovskii, V. G. Dubinin, A. M. Prokhorov, Z. A. Trapeznikova, and M. V. Fock — 1039L.
- Magnetic Fields** (see Electromagnetic Theory and Electrodynamics)
- Magnetic Properties**
- An Investigation of the Quantized Oscillations in the Magnetic Susceptibility of Bismuth at Extremely Low Temperatures. N. B. Brandt, A. E. Dubrovskaya, and G. A. Kytin — 405L.
- Anomalies in Internal Friction and Modulus of Elasticity in Ferromagnetics Near the Curie Point. K. P. Belov, G. I. Kataev, and R. Z. Levitin — 670.
- Antiferromagnetism in NiF_2 . R. A. Alkhanov — 814L.
- Coupled Magnetoelastic Oscillations in Antiferromagnetics. S. V. Peletminskii — 321.
- Effect of Uniaxial Compression on the Quantum Oscillations of the Magnetic Susceptibility of Bismuth. N. B. Brandt and G. A. Ryabenko — 278.
- Features of Magnetic Hysteresis Phenomena in the Systems $\text{Pr}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$ and $\text{La}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$. K. P. Belov, M. A. Zaitseva, and A. M. Kadomtseva — 825L.
- Hall Effect in Ferrites Near the Curie Temperature. K. P. Belov and E. P. Svirina — 862.
- Magnetostriction of Antiferromagnetic Nickel Monoxide. K. P. Belov and R. Z. Levitin — 400L.
- Nonresonance Absorption of Oscillating Magnetic Field Energy by a Ferromagnetic Dielectric. M. I. Kaganov and V. M. Tsukernik — 587.
- On the Causes of the Peculiarities in the Physical Properties of Invar Alloys. E. I. Kondorskii — 1284L.
- On the Intermediate State of Ferromagnetic Superconductors. G. F. Zharkov — 1259.
- On the Magnetization Process in Ferromagnets. L. V. Kirenski, M. K. Savchenko, and I. F. Degtyarev — 437.
- On the Magneto-electrical Effect in Antiferromagnets. I. E. Dzyaloshinskii — 628L.
- On the Paper of V. A. Belokon: "The Permanent Structure of Shock Waves with Joule Dissipation." A. G. Kulikovskii, and G. A. Lyubimov — 835L.
- On the Theory of Magnetic-moment Relaxation in Ferroelectric Substances. V. G. Bar'yakhtar — 493.
- On the Theory of the Temperature Dependence of Per-

- romagnetic Anisotropy. E. A. Turov and A. I. Mitsek — 801.
- Oscillations in the Absorption Coefficient of Sound in Tin at Low Temperatures. A. A. Galkin and A. P. Korolyuk — 219L.
- Paramagnetic Resonance in Magnetically Dilute Systems. N. S. Garif'yanov — 1101.
- Quantum Theory of Spatial Dispersion of Electric and Magnetic Susceptibilities. O. V. Konstantinov and V. I. Perel' — 560.
- Raman Scattering of Electromagnetic Waves in Ferromagnetic Dielectrics. F. G. Bass and M. I. Kaganov — 986.
- Rotation of the Plane of Polarization of Elastic Waves in Magnetically Polarized Magnetoelastic Media. K. B. Vlasov and B. Kh. Ishmukhametov — 531.
- Scattering of Low-energy Electron by Short-range Potential in Strong Magnetic Field. V. G. Skobov — 1039L.
- Shift in Curie Temperature During Uniform Compression of Manganese and Cobalt Fluorides. D. N. Astrov, S. I. Novikova, and M. P. Orlova — 851.
- The Anisotropy of Magnetoresistance and the Topology of Fermi Surfaces of Metals. N. E. Alekseevskii and Yu. P. Gaidukov — 481.
- Theory of Paramagnetic Resonance in Systems Containing Two Kinds of Magnetic Moments. A. A. Kokin and G. V. Skrotskii — 342.
- Theory of the Stability of Magnetic States of Ferromagnetic Materials in the Magnetization Process. E. I. Kondorskii — 790.
- Thermoelectric Phenomena in Strong Magnetic Fields in Metals Possessing Various Fermi Surfaces. Yu. A. Bychkov, L. É. Gurevich, and G. M. Nedlin — 377.
- Magnetic Resonance**
- Anomalous Heat Capacity and Nuclear Resonance in Crystalline Hydrogen in Connection with New Data on Its Structure. S. S. Dukhin — 1054L.
- Coupled Magnetoelastic Oscillations in Antiferromagnetics. S. V. Peletminskii — 321.
- Cyclotron Resonance in Indium at 9300 Mcs. P. A. Bezuglyi and A. A. Galkin — 1049L.
- Cyclotron Resonance in Tin. M. S. Khaikin — 1044L.
- Electron Resonance in Crossed Electric and Magnetic Fields. I. M. Lifshitz and M. I. Kaganov — 392L.
- Fine Structure in the Paramagnetic Resonance Spectrum of Natural Sapphire. V. M. Vinokurov, M. M. Zaripov, and N. R. Yafaev — 220L.
- Measurements of the Transverse Proton Relaxation Time in Aqueous Solutions of Paramagnetic Salts by the Spin-echo Method. V. D. Korepanov, R. A. Dautov, and V. M. Fadeev — 218L.
- Nonresonance Absorption of Oscillating Magnetic Field Energy by a Ferromagnetic Dielectric. M. I. Kaganov and V. M. Tsukernik — 587.
- On the Influence of Coherent Magnetic Dipole Radiation on Magnetic Resonance. G. V. Skrotskii and A. A. Kokin — 572.
- On the Structure of Solid Hydrogen. A. A. Galkin and I. V. Matyash — 1292L.
- Paramagnetic Resonance and Paramagnetic Relaxation in Electrolyte Solutions. V. I. Avvakumov, N. S. Garif'yanov, B. M. Kozyrev, and P. G. Tishkov — 1110.
- Paramagnetic Resonance in Magnetically Dilute Systems. N. S. Garif'yanov — 1101.
- Raman Scattering of Electromagnetic Waves in Ferromagnetic Dielectrics. F. G. Bass and M. I. Kaganov — 986.
- The Dynamical Character of the Jahn-Teller Effect and its Influence on the Paramagnetic Resonance of Cu^{++} . V. I. Avvakumov — 723.
- Theory of Paramagnetic Resonance in Systems Containing Two Kinds of Magnetic Moments. A. A. Kokin and G. V. Skrotskii — 342.
- Theory of Spin-lattice Quadrupole Relaxation in Liquid Solutions of Diamagnetic Salts. K. A. Valiev — 77.
- Magneto-Optical Effects** (see Optical Properties)
- Magnetoresistance** (see Electrical Conductivity and Resistance; Semiconductors)
- Magnetostriction** (see Magnetic Properties)
- Mathematical Methods**
- A Method for Calculation of Phase Volumes. L. G. Zastavenko — 939.
- Angular and Polarization Analyses of Reactions of the Type $a + b \rightarrow a' + b' + c'$. V. I. Ritus — 153.
- Application of the Dispersion Relations Method in Quantum Electrodynamics. V. Ya. Faiberg — 968.
- Calculation of Phase Integrals in the Covariant Formulation of the Theory of Multiple Production of Particles. L. G. Yakovlev — 741.
- Classification of Molecular Terms with Respect to Total Nuclear Spin. E. G. Kaplan — 747.
- Contribution to the Theory of Relativistically Invariant Equations. L. A. Shelepin — 1153.
- Equilibrium of a Plasma Toroid in a Magnetic Field. V. D. Shafranov — 775.
- Growth of Electromagnetic Waves in Interpenetrating Infinite Moving Media. G. G. Getmantsev — 600.
- Incompatibility of the Conditions of Analyticity and Unitarity in the Lee Model. K. A. Ter-Martirosyan — 714.
- On the Analytic Properties of Vertex Parts in Quantum Field Theory. L. D. Landau — 45.
- On the Conditions of Applicability of Statistical Formulas to a Degenerate Fermi Gas. Ya. B. Zel'dovich and E. M. Rabinovich — 924.
- On the Cross Section for Compound-nucleus Formation by Charged Particles. A. D. Piliya — 413L.
- On the Determination of the Potential in Quantum Field Theory. M. A. Braun — 582.
- On the Introduction of an "Elementary Length" in the Relativistic Theory of Elementary Particles. Yu. A. Gol'fand — 356.
- On the Lagrangian Formalism for Spin Variables. D. V. Volkov and S. V. Peletminskii — 121.
- On the Methods of Born and Pais for Finding Phase Shifts. T. Titts — 207L.
- On the Relativistic Operators for Momentum and Angular Momentum. A. P. Gel'man — 339.
- On the Theory of the Relativistic Transformations of the Wave Functions and Density Matrix of Particles with Spin. V. S. Popov — 794.
- Quantum Theory of Spatial Dispersion of Electric and Magnetic Susceptibilities. O. V. Konstantinov and V. I. Perel' — 560.

- Quasiclassical Solutions of the Radial Dirac Equations. N. I. Zhirnov — 1148.
- Relativistic Spherical Functions. II. A. Z. Dolginov and I. N. Toptygin — 1022.
- Relativistic Spherical Functions III. A. Z. Dolginov and A. N. Moskalev — 1202.
- The Method of Dispersion Relations and Perturbation Theory. N. N. Bogolyubov, A. A. Logunov, and D. V. Shirkov — 574.
- Threshold-Momentum Power Series Expansion of the Amplitude of a Reaction Involving the Formation of Low Energy Particles. I. T. Dyatlov — 947.
- Wave Equations with Zero and Nonzero Rest Masses. V. I. Ogievetskii and I. V. Polubarinov — 335.
- Measurements** (see Methods and Measurements)
- Mechanics**
- Paramagnetic Absorption and Rotation of Plane of Polarization for Certain Salts in the Microwave Band. A. I. Kurushin — 209L.
- Paramagnetic Resonance in Potassium Ozonide. A. K. Piskunov, A. A. Manenkov, and Z. A. Bagdasar'yan — 213L.
- Mechanics, Quantum** (see Quantum Mechanics)
- Mechanics, Quantum-Atomic Structure and Spectra** (see Atomic Structure and Spectra)
- Mechanics, Quantum-of Solid Bodies** (see Crystalline State)
- Mechanics, Statistical** (see Statistical Mechanics and Thermodynamics)
- Meson Field Theory** (see Field Theory)
- Mesons and Hyperons** (see also Cosmic Radiation; Elementary Particle Interactions; Nuclear Reactions Induced by Mesons; Scattering of Mesons)
- Analyticity and Unitarity in the Scattering of Scalar Mesons from a Static Nucleon. B. L. Ioffe — 1245.
- Angular Distribution of Shower Particles in Stars Produced by High-energy Particles. L. A. San'ko, Zh. S. Takibaev, Ts. I. Shakhova, and L. Ya. Balats — 1.
- Capture of μ^- Mesons by Light Nuclei. B. L. Ioffe.
- Capture of Polarized Muons by Deuterons. A. P. Bukhvostov and I. M. Shmushkevich — 1042L.
- Decay Processes in the Development of Nuclear Cascades in the Atmosphere. G. T. Zatsapin, S. I. Nikol'skii, and A. A. Pomanskii — 138.
- Effect of the Hyperfine Structure on Polarization of Negative Muons in Meso Atoms. L. B. Egorov, A. E. Ignatenko, and D. Chultem — 1077.
- Effect of Viscosity in Multiple Production on the Energy Distribution of Secondary Particles. A. A. Emel'yanov and D. S. Chernavskii — 753.
- Elastic Scattering of 5–22 Mev π^+ Mesons on Carbon. V. G. Kirillov-Ugryumov, L. P. Kotenko, E. P. Kuznetsov, F. M. Sergeev, and A. F. Grashin — 907.
- Elastic Scattering of 390-Mev π^+ Mesons from Protons. E. L. Grigor'ev and N. A. Mitin — 1123.
- Electromagnetic Mass of the K Meson. Chou Kuang-Chao and V. I. Ogievetskii — 616L.
- Energy Dependence of the Spatial Asymmetry of Positrons in $\pi^- \rightarrow \mu^- + e^-$ Decay. A. O. Vaisenberg, V. A. Smirnit'skii, E. D. Kolganova, and N. V. Rabin — 231L.
- Inelastic Collisions between Fast Polarized Particles and Atoms. V. V. Batygin and I. N. Toptygin — 975.
- Inelastic Interaction of π^+ Mesons with Light Nuclei in the Energy Region 80–300 Mev. A. G. Meshkovskii and Ya. Ya. Shalamov — 697.
- Inelastic Scattering and Absorption of (195 ± 15) -Mev Positive Pions by Carbon and Lithium Nuclei. N. I. Petrov, V. G. Ivanov and V. A. Rusakov — 682.
- Interaction of 9-Bev Protons with Free and Quasifree Nucleons in Photographic Emulsions. N. P. Bogachev, S. A. Bunyatov, I. M. Gramenitskii, V. B. Lyubimov, Yu. P. Merekov, M. I. Podgoretskii, V. M. Sidorov, and D. Tuvdendorzh — 872.
- Investigation of the High-energy μ -Meson Flux in Extensive Atmospheric Showers. S. N. Vernov, B. A. Khrenov, and G. B. Khristiansen — 891.
- Nonmesonic Decay of Hyperfragments. I. B. Berkovich, A. P. Zhdanov, F. G. Lepekhin, and Z. S. Khokhlova — 428.
- Note on a Baryon Scheme. H. Oiglane — 394L.
- Nuclear Interactions of 8.7-Bev Protons in Photographic Emulsions. G. B. Zhdanov, V. M. Maksimenko, M. I. Tret'yakova, and M. N. Shcherbakova — 442.
- On a Certain Possibility of Setting up a System of "Elementary" Particles. I. V. Chuvilo — 994.
- On a Symmetry in τ^0 Decay. M. I. Shirokov — 232L.
- On an Estimate of Energy Characteristics of Shower Producing Particles. E. G. Boos and Zh. S. Takibaev — 206L.
- On Certain Singularities in the Interaction with Light Nuclei of Particles with Energies $E \geq 2 \times 10^{15}$ ev. N. L. Grigorov and V. Ya. Shestoporov — 816L.
- On Electromagnetic Correction in μ -e Decay. V. P. Kuznetsov — 784.
- On $K_{\pi 4}$ Decay. L. B. Okun' and E. P. Shabaln — 1252.
- On the Anomalous Magnetic Moment of Nucleons in Chew's Method. Yu. M. Lomsadze, V. I. Lend'el, and B. M. Ernst — 955.
- On the Connection of Isotopic Spin and Strangeness with the Behavior of Spinors under Inversion. A. M. Brodskii and D. D. Ivanenko — 624L.
- On the Mechanism of Capture of Stopped K^- Mesons. D. K. Kopylova, Yu. B. Korolevich, N. I. Petukhova, and M. I. Podgoretskii — 203.
- On the Problem of Investigating the Interaction between π Mesons and Hyperons. L. I. Lapidus and Chou Kuang-Chao — 199.
- Parity Nonconservation in Strong Interactions of Strange Particles. S. G. Matinyan — 736.
- Photoproduction of Neutral π Mesons on Hydrogen by γ Quanta with Energy between the Threshold and 240 Mev. R. G. Vasil'kov, B. B. Govorkov, and V. I. Gol'danskii — 7.
- Photoproduction of π^0 Mesons from Carbon near Threshold. R. G. Vasil'kov, B. B. Govorkov, and V. I. Gol'danskii — 818L.
- π^-p Interaction at 1.4 Bev. V. I. Ruskin — 74.
- Polarization Effects in the Direct Transition of $\mu^+\mu^-$ into an Electron-Positron Pair. B. A. Lysov — 404L.
- Polarization Effect in the $\pi^0 \rightarrow e^- + e^+ + \gamma$ Decay. B. K. Kerimov, A. I. Mukhtarov, and S. A. Gadzhiev — 407L.

- Production of K^+ Mesons by Cosmic-ray Protons at 3250 m Above Sea Level. M. Ya. Balats, P. I. Lebedev, and Yu. V. Obukhov — 417.
- Resonance Interaction of Pions. V. S. Barashenkov and V. M. Mal'tsev — 630L.
- The Formfactor and the Leptonic Decay Probability of the Λ Particle. Ho Tsu-Hsiu — 1288L.
- The $\mu \rightarrow e + \gamma$ and $\mu \rightarrow e + \nu + \bar{\nu} + \gamma$ Decays. Yu. S. Krestnikov, A. G. Meshkovskii, Ya. Ya. Shalamov, V. A. Shebanov, and I. Yu. Kobzarev — 622L.
- The Number of Elementary Baryons and the Universal Baryon Repulsion Hypothesis. Ya. B. Zel'dovich — 403L.
- The Ultraviolet Asymptotic Value for the Interaction of K Mesons with Baryons. J. Wrzeczkonko — 69.
- Three-electron Decay of the Muon. I. I. Gurevich, B. A. Nikol'skii, and L. V. Surkova — 225L.
- Total Cross Section of Photoproduction of π^0 Mesons on Protons at Low Energies. R. G. Vasil'kov and B. B. Govorkov — 224L.
- Metals** (see Crystalline State)
- Metastable Atoms** (see Atomic Structure and Spectra)
- Methods and Instruments**
- Alpha Spectrum of the Natural Samarium Isotope Mixture. A. A. Vorob'ev, A. P. Komar, V. A. Korolev, and G. E. Solyankin — 386L.
- Capture Mechanism in Betatrons. I. M. Samoilov — 504.
- Electric Conductivity of the Explosion Products of Condensed Explosives. A. A. Brish, M. S. Tarasov, and V. A. Tsukerman — 1095.
- Experiments in the Production of a New Fermion Isotope. V. P. Pereygin, E. D. Donets, and G. N. Flerov — 1106.
- Gamma Rays from a $Po-O^{18}$ Neutron Source. É. M. Tsenter, A. G. Khabakhpashev, and I. A. Pirkin — 806L.
- Localization of a High-Frequency Induction Discharge. M. D. Raizer and S. E. Grebenshchikov — 398L.
- Minimal Error in the Experimental Observation of Asymmetry. N. P. Klepikov — 810L.
- Muon Depolarization in μ -Mesic Atoms with Deformed Nuclei. D. F. Zaretskii and V. M. Novikov — 1287L.
- On Certain Experiments with Metastable Liquids in an X-ray Beam. G. A. Askar'yann, L. P. Kotenko, E. P. Kuznetsov, and A. V. Samoilov — 1041L.
- On Certain Singularities in the Interaction with Light Nuclei of Particles with Energies $E \geq 2 \times 10^{12}$ ev. N. L. Grigorov, and V. Ya. Shestoporov — 816L.
- On the Measurement of the Momentum of Fast Particles and the Investigation of Nuclear Interaction in the 10^{10} — 10^{12} ev Energy Range. M. I. Daion and V. Kh. Volynskii — 648.
- Possibility of Measuring the Velocity of Propagation of Gravitation in the Laboratory. I. L. Bershtein and M. E. Gertsenshtein — 1293L.
- Quantum-mechanical Semiconductor Generators and Amplifiers of Electromagnetic Oscillators. N. G. Basov, B. M. Vul, and Yu. M. Popov — 416L.
- Search for Particles with Mass between 6 and 25 Electron Masses. A. S. Belousov, S. V. Rusakov, E. I. Tamm, and P. A. Cerenkov — 1143.
- Use of Slow Molecules in a Maser. N. G. Basov and

- A. N. Oraevskii — 761.
- Use of the (d, p) Reaction to Excite States with Large Spins. V. G. Neudachin, I. B. Teplov, and A. F. Tulinov — 387L.
- Microwaves**
- Fine Structure in the Paramagnetic Resonance Spectrum of Natural Sapphire. V. M. Vinokurov, M. M. Zaripov, and N. R. Yafaev — 220L.
- Growth of Electromagnetic Waves in Interpenetrating Infinite Moving Media. G. G. Getmantsev — 600.
- Paramagnetic Absorption and Rotation of Plane of Polarization for Certain Salts in the Microwave Band. A. I. Kurishin — 209L.
- Raman Scattering of Electromagnetic Waves in Ferromagnetic Dielectrics. F. G. Bass and M. I. Kaganov — 986.
- Use of Slow Molecules in a Maser. N. G. Basov and A. N. Oraevskii — 761.
- Miscellaneous**
- Condensation of a Cloud of Vaporized Matter Expanding in Vacuum. Yu. P. Rafzer — 1229.
- Directed Emission of Particles from a Copper Single Crystal Sputtered by Bombardment with Ions up to 50 Kev Energy. V. E. Yurasova, N. V. Pleshivtsev, and I. V. Orfanov — 689.
- Molecular Structure and Spectra**
- Classification of Molecular Terms with Respect to Total Nuclear Spin. E. G. Kaplan — 747.
- Mesic Molecular Processes in Hydrogen. V. B. Belyaev, S. S. Gershtein, B. N. Zakhar'ev, and S. P. Lomnev — 1171.
- The Dynamical Character of the Jahn-Teller Effect and Its Influence on the Paramagnetic Resonance of Cu^{2+} . V. I. Avvakumov — 723.
- Moments, Nuclear** (see Nuclear Moments and Spin)
- Neutrino**
- Electron and Muon Neutrinos. B. Pontecorvo — 1236.
- Emission of Neutrino Pairs by Electrons and the Role Played by it in Stars. G. M. Gandel'man and V. S. Pinaev — 764.
- On Two Types of Neutrinos, the Isotopic Spin of Leptons, and the Universal Four-Fermion Interaction. É. M. Lipmanov — 750.
- Second-forbidden Coulomb β -Decay Transitions. Yu. V. Gaponov — 109.
- Neutrons** (see Elementary Particle Interactions)
- Nuclear Fission**
- Angular Anisotropy of Gamma Quanta that Accompany Fission. V. M. Strutinskii — 613L.
- Angular Distribution of Fission Fragments in Fission Induced by Heavy Ions. V. A. Drulin, Yu. V. Lobanov, and S. M. Polikanov — 26.
- Comparison of Effective Temperatures of Spectra of Neutrons Emitted in Fission of U^{235} and P^{239} by Fast and Thermal Neutrons. G. N. Smirenkin — 1286L.
- Cross Section for Production of Fm^{250} in the Reactions $Pu^{241}(C^{13}, 4n)Fm^{250}$ and $U^{238}(O^{16}, 4n)Fm^{250}$. V. V. Volkov, L. I. Guseva, B. F. Myasoedov, N. I. Tarantín, and K. V. Filippova — 859.
- Experiments in the Production of a New Fermion Isotope. V. P. Pereygin, E. D. Donets, and G. N. Flerov — 1106.

- Fission of Th^{232} Induced by Thermal Neutrons. E. I. Korneev, V. S. Skobkin, and G. N. Flerov - 29.
- Fragmentation on Bismuth Nuclei. V. F. Darovskikh, N. P. Kocherov, and N. A. Perfilov - 921.
- Some Features of the Spontaneous Fission of U^{238} . B. D. Kuz'minov, L. S. Kutsaeva, V. G. Nesterov, L. I. Prokhorova, and G. N. Smirenkin - 290.
- Spontaneous Fission of Am^{241} . V. L. Mikheev, N. K. Skobelev, V. A. Druin, and G. N. Flerov - 612L.
- Nuclear Moments and Spin**
- Clustering of Nucleons in Light Nuclei. V. G. Neudachin, Yu. F. Smirnov, and N. P. Yudin - 1256.
- Excitation of Vibrational Levels in Nuclei by Charged Particles. A. D. Piliya - 1018.
- Measurements of Nuclear Magnetic Moments in the Alkali Earths by Molecular Beam Magnetic Resonance. A. G. Kucheryaev, Yu. K. Szhenov, and Sh. M. Gogichaishvili - 412L.
- Measurement of the Polarization of Deuterons in the Reaction $p + p \rightarrow d + \pi^+$ at Proton Energies of 670 Mev. Yu. K. Akimov, K. S. Marish, O. V. Savchenko, and L. M. Soroko - 33.
- Nuclear Moments of the Odd Isotopes of Gadolinium. N. I. Kaliteevskii, M. P. Chaika, I. Kh. Pacheva, and É. E. Fradkin - 629L.
- On the Theory of the Nuclear Moment of Inertia. Yu. K. Khokhlov - 808L.
- Optical Anisotropy of Atomic Nuclei. A. M. Baldin - 142.
- Radioactive Decay of Ag^{110m} . N. M. Anton'eva, A. A. Bashilov, and E. K. Kulakovskii - 1063.
- The Spectrum of Internal Conversion Electrons Accompanying Alpha Decay of U^{233} and the Level Scheme of Th^{229} . E. F. Tret'yakov, M. P. Anikina, L. L. Gol'din, G. I. Novikova, and N. I. Pirogova - 656.
- Use of the (d, p) Reaction to Excite States with Large Spins. V. G. Neudachin, I. B. Teplov, and A. F. Tulinov - 387L.
- Nuclear Photoeffects**
- Fast Photoneutrons from Be^9 , C^{12} and Al^{27} . L. A. Kul'chitskii and V. Presperin - 1082.
- On Certain Singularities in the Interaction with Light Nuclei of Particles with Energies $E \approx 2 \times 10^{12}$ ev. N. L. Grigorov and V. Ya. Shestoporov - 816L.
- On the Fine Structure of the Giant Resonance. N. A. Burgov, G. V. Danilyan, B. S. Dolbilkin, L. E. Lazareva, and F. A. Nikolaev - 1278L.
- On the Influence of the Pauli Principle and of Short-Range Nuclear Forces on the Absorption of Photons by Nuclei in the Oscillator Model. V. A. Élt'kov - 830L.
- On the Theory of the Direct Nuclear Photoeffect. Yu. V. Orlov - 1294L.
- Optical Anisotropy of Atomic Nuclei. A. M. Baldin - 142.
- Spectrum of Photo Protons Produced by Gamma Rays in the Narrow 82 - 89 Mev Energy Range. E. B. Bazhanov - 267.
- Nuclear Reactions, General**
- Angular and Polarization Analyses of Reactions of the Type $a + b \rightarrow a' + b' + c'$. V. I. Ritus - 153.
- Angular Distribution of Long-range Alpha-Particles, Connected with the Fission Forces. N. A. Perfilov and Z. I. Solov'eva - 824L.
- Circular Polarization of Gamma Quanta Emitted by a Nucleus after μ^- Capture. I. S. Shapiro and L. D. Blokhintsev - 542.
- Coulomb Excitation of Odd-mass Nuclei by Multiply-charged Ions. D. G. Alkhazov, A. P. Grinberg, G. M. Gusinskii, K. I. Erokhina, and I. Kh. Lemberg - 1086.
- Cross Section for Production of Cm^{240} by Irradiation of Th^{232} with C^{12} and C^{13} Ions. L. I. Guseva, B. F. Myasoedov, N. I. Tarantin, and K. V. Filippova - 694.
- Cross Section for Production of Fm^{250} in the Reactions $\text{Pu}^{241}(\text{C}^{13}, 4n)\text{Fm}^{250}$ and $\text{U}^{238}(\text{O}^{16}, 4n)\text{Fm}^{250}$. V. V. Volkov, L. I. Guseva, B. F. Myasoedov, N. I. Tarantin, and K. V. Filippova - 859.
- Emitters of α -Particles with Energies of About 9 and 12 Mev. V. A. Karnaukhov, V. I. Khalizov, and G. N. Flerov - 901.
- Excitation of Vibrational Levels in Nuclei by Charged Particles. A. D. Piliya - 1018.
- Experiments in the Production of a New Fermium Isotope. V. P. Pereygin, E. D. Donets, and G. N. Flerov - 1106.
- Fragmentation on Bismuth Nuclei. V. F. Darovskikh, N. P. Kocherov, and N. A. Perfilov - 921.
- Gamma Rays from a Po-C^{13} Neutron Source. É. M. Tsenter, A. G. Khabakhpashev, and I. A. Pirkin - 806L.
- Measurement of the Intensity Ratio of Transitions to the First Excited Levels of the Daughter Nuclei in the Decay of U^{238} and U^{234} . A. A. Vorob'ev, A. P. Komar, and V. A. Korolev - 1032L.
- Muon Depolarization in μ -Mesic Atoms with Deformed Nuclei. D. F. Zaretskii and V. M. Novikov - 1287L.
- Nuclear Reactions Induced by Heavy Ions. J. H. Fremlin and J. S. Little - 229L.
- On the Cross Section for Compound-Nucleus Formation by Charged Particles. A. D. Piliya - 413L.
- On the Determination of Nuclear Deformation from the Alpha-Decay Fine Structure. V. G. Nosov - 631L.
- On the Mechanism of Capture of Stopped K^+ Mesons. D. K. Kopylova, Yu. B. Korolevich, N. I. Petukhova, and M. I. Podgoretskii - 203.
- Production of Compound Nuclei by Bombardment of V and Nb with O^{16} , C^{12} , and C^{13} Ions. A. S. Karayman and A. A. Pleve - 467.
- Scattering of Electrons by Light Nonspherical Nuclei. E. V. Inopin and B. I. Tishchenko - 932.
- Threshold Momentum Power Series Expansion of the Amplitude of a Reaction Involving the Formation of Low-energy Particles. I. T. Dyatlov - 947.
- Nuclear Reactions Induced by Alpha Particles and He^9**
- Excitation of Rotational States of Nonaxial Nuclei in Alpha-Particle Scattering. E. A. Romanovskii - 606L.
- Gamma Rays from a Po-O^{18} Neutron Source. É. M. Tsenter, A. G. Khabakhpashev, and I. A. Pirkin - 806L.
- Nuclear Reactions Induced by Deuterons and Tritons**
- (d, t) Reactions on Li^6 , Li^7 , and Be^9 Nuclei. N. A. Vlasov and A. A. Ogloblin - 39.
- The (d, t) Reaction on C^{12} , P^{31} , and Al^{27} Nuclei.

- N. A. Vlasov, S. P. Kalinin, A. A. Ogloblin, and V. I. Chuev — 844.
- Use of the (d, p) Reaction to Excite States with Large Spins. V. G. Neudachin, I. B. Teplov, and A. F. Tulinov — 387L.
- Nuclear Reactions Induced by Mesons**
- Capture of μ^- Mesons by Light Nuclei. B. L. Ioffe — 113.
- Capture of Polarized Muons and Deuterons. A. P. Bukhovstov and I. M. Shmushkevich — 1042L.
- Circular Polarization of Gamma Quanta Emitted by a Nucleus after μ^- Capture. I. S. Shapiro and L. D. Blokhintsev — 542.
- Inelastic Scattering and Absorption of (195 $\pm$ 15)-Mev Positive Pions by Carbon and Lithium Nuclei. N. I. Petrov, V. G. Ivanov, and V. A. Rusakov — 682.
- Nonmesonic Decay of Hyperfragments. I. B. Berkovich, A. P. Zhdanov, F. G. Lepekhin, and Z. S. Khokhlova — 428.
- On the Absorption of π^+ Mesons with Energies of About 50 Mev by Carbon Nuclei. J. V. Laberrigue-Frolova, M. P. Balandin, and S. Z. Otvinovskii — 452.
- Production of Multiply-charged Particles on Photographic Emulsion Nuclei by 280-Mev Positive Pions. N. S. Ivanova, V. I. Ostroumov, and Yu. V. Pavlov — 1137.
- Nuclear Reactions Induced by Neutrons**
- Comparison of Effective Temperatures of Spectra of Neutrons Emitted in Fission of ^{235}U and Pu^{239} by Fast and Thermal Neutrons. G. N. Smirenkin — 1286L.
- Polarization of Neutrons from the T(p, n) He^3 Reaction and Protons from the $\text{He}^3(n, p)\text{T}$ Reaction. K. P. Artemov, N. A. Vlasov, and L. N. Samoilov — 841.
- Possibility of Investigating the Levels of a Compound Nucleus Produced by Interaction between Slow Neutrons and Isomers. Yu. V. Petfov — 833L.
- Radiative Capture of Neutrons. D. F. Zaretskiy — 772.
- Nuclear Reactions Induced by Protons**
- Angular Distribution of Shower Particles in Stars Produced by High-energy Particles. L. A. San'ko, Zh. S. Takibaev, Ts. I. Shakhova, and L. Ya. Balats — 1.
- Fragmentation on Bismuth Nuclei. V. F. Darovskikh, N. P. Kocherov, and N. A. Perfilov — 921.
- Interaction of 9-Bev Protons with Free and Quasifree Nucleons in Photographic Emulsions. N. P. Bogachev, S. A. Bunyatov, I. M. Gramenitskiy, V. B. Lyubimov, Yu. P. Merekov, M. I. Podgorskiy, V. M. Sidorov, and D. Tuvdendorzh — 872.
- Knock-on Alpha Particles Produced by Fast Nucleons. V. I. Ostroumov and R. A. Filov — 459.
- Nuclear Interactions of 8.7-Bev Protons in Photographic Emulsions. G. B. Zhdanov, V. M. Maksimenko, M. I. Tret'yakova, and M. N. Shecherbakova — 442.
- Polarization of Neutrons from the T(p, n) He^3 Reaction and Protons from the $\text{He}^3(n, p)\text{T}$ Reaction. K. P. Artemov, N. A. Vlasov, and L. N. Samoilov — 841.
- Potential Barrier Criterion and Stars in Emulsions. P. I. Fedotov — 674.
- Production of Multiply-charged Particles on Photographic Emulsion Nuclei by 280-Mev Positive Pions. N. S. Ivanova, V. I. Ostroumov, and Yu. V. Pavlov — 1137.
- Recoil Nuclei from the Disintegration of Silver by Fast Protons. N. L. Borisova, M. Ya. Kuznetsova, L. N. Kurchatova, V. N. Mekhedov, and L. V. Chistyakov — 261.
- Results of a Study of the Disintegration of Carbon Nuclei by 660-Mev Protons. A. P. Zhdanov and P. I. Fedotov — 280.
- Total Cross Section of Photoproduction of π^0 Mesons on Protons at Low Energies. R. G. Vasil'kov and B. B. Govorkov — 224L.
- Use of the (d, p) Reaction to Excite States with Large Spins. V. G. Neudachin, I. B. Teplov, and A. F. Tulinov — 387L.
- Nuclear Scattering (see Scattering)**
- Nuclear Spectra**
- Alpha Decay of Th^{233} . Interaction of Nuclear Levels. L. L. Gol'din, G. I. Novikova, N. I. Pirogova, and E. F. Tret'yakov — 822L.
- Application of the Variational Principle for the Determination of the Binding Energy of a Proton-Electron-Positron System. V. P. Shmelev — 325.
- Calculation of Energy Levels of Te^{206} and Bi^{210} Nuclei. L. A. Sliv and Yu. I. Kharitonov — 819L.
- Comparison of Effective Temperatures of Spectra of Neutrons Emitted in Fission of ^{235}U and Pu^{239} by Fast and Thermal Neutrons. G. N. Smirenkin — 1286L.
- Coulomb Excitation of Odd-mass Nuclei by Multiply-charged Ions. D. G. Alkhasov, A. P. Grinberg, G. M. Gusinskiy, K. I. Erokhina, and I. Kh. Lemberg — 1086.
- Effect of the Hyperfine Structure on Polarization of Negative Muons in Mesic Atoms. L. B. Egorov, A. E. Ignatenko, and D. Chultem — 1077.
- Electric Quadrupole Gamma Transitions in Even-even Nuclei. N. N. Delyagin — 605L.
- Experiments in the Production of a New Fermium Isotope. V. P. Pereygin, E. D. Donets, and G. N. Flerov — 1106.
- Gamma Rays from a Po-O^{18} Neutron Source. É. M. Tsenter, A. G. Khabakhpashev, and I. A. Pirkkin — 806L.
- Intensity Rules for Beta Transitions to Different Rotational States of Even-even Daughter Nuclei. A. S. Davydov — 98.
- Measurement of the Intensity Ratio of Transitions to the First Excited Levels of the Daughter Nuclei in the Decay of U^{238} and U^{234} . A. A. Vorob'ev, A. P. Komar, and V. A. Koroletv — 1032L.
- Measurement of the Lifetime of the First Excited State of Ne^{21} . A. G. Khabakhpashev and É. M. Tsenter — 705.
- Multipolarities of Gamma Transitions in Tm^{169} . V. M. Kel'man, R. Ya. Metskhvarishvili, B. K. Probozhenskii, V. A. Romanov, and V. V. Turchkevich — 456.
- $\text{O}^+ - \text{O}^+$ Transition in the Decay $\text{Pr}^{140} \rightarrow \text{Ce}^{140}$. B. S. Dzhelepor, I. F. Uchevatkin, and S. A. Shestopalova — 611L.
- On the Decay Scheme of the Bi^{210} Isomer. S. V. Golenetskiy, L. I. Rusinov, and Yu. I. Filimonov — 395L.
- On the Nucleon + Core Model of the Nucleus with a Vibrational Excitation Spectrum of the Core. D. P. Grechukhin — 730.
- On the Rotational Levels of Li^7 . V. I. Mamasakhilov

- and T. I. Kopaleishvili — 807L.
- Optical Anisotropy of Atomic Nuclei. A. M. Baldin — 142.
- Positron Spectrum of Eu^{152} and Eu^{154m} . S. F. Antonova, S. S. Vasilenko, M. G. Kaganski, and D. L. Kaminski — 477.
- Production of Compound Nuclei by Bombardment of V and Nb with C^{16} , C^{12} , and C^{13} Ions. A. S. Karamyan and A. A. Pleve — 467.
- Radiative Capture of Neutrons. D. F. Zaretski — 772.
- Radioactive Decay of Ac^{227} and Excited Levels of Fr^{223} and Th^{227} . G. I. Novikova, E. A. Volkova, L. L. Gol'din, D. M. Ziv, and E. F. Tret'yakov — 663.
- Resonance Scattering of Gamma Quanta by Mg^{24} . I. Sh. Vashakidze, T. I. Kopaleishvili, and G. A. Chilashvili — 535.
- Resonance Scattering of Gamma Quanta on Cd^{114} Nuclei. N. N. Delyagin — 837.
- The (d, t) Reaction on C^{12} , F^{19} , and Al^{27} Nuclei. N. A. Vlasov, S. P. Kalinin, A. A. Ogloblin, and V. I. Chuev — 844.
- The Spectrum of Internal Conversion Electrons Accompanying Alpha Decay of U^{233} and the Level Scheme of Th^{229} . E. F. Tret'yakov, M. P. Anikina, L. L. Gol'din, G. I. Novikova, and N. I. Pirogova — 656.
- Transition Probabilities between Rotational States of Non-Axial Odd Nuclei. Wang Ling — 821L.
- Nuclear Structure Theory**
- Angular Distribution and Polarization of Beta Particles in Second Forbidden Transitions. A. Z. Dolginov and E. V. Kharitonov — 553.
- Angular Distribution of Long-range Alpha Particles Connected with the Fission Process. N. A. Perfilov and Z. I. Solov'eva — 824L.
- Calculation of Energy Levels of Te^{206} and Bi^{210} Nuclei. L. A. Sliv and Yu. I. Kharitonov — 819L.
- Clustering of Nucleons in Light Nuclei. V. G. Neudachin, Yu. F. Smirnov, and N. P. Yudin — 1256.
- Contribution of Three-particle Forces to the Binding Energy of Hypernuclei. V. A. Lyul'ka and V. A. Filimonov — 1015.
- Distribution of the Density of Protons in a Nucleus with a Given Angular Momentum. L. P. Rapoport and S. G. Kadmskii — 929.
- Electric Quadrupole Gamma Transitions in Even-even Nuclei. N. N. Delyagin — 605L.
- Excitation of Rotational States of Nonaxial Nuclei in Alpha-particle Scattering. A. E. Romanovskii — 606L.
- Excitation of Vibrational Levels in Nuclei by Charged Particles. A. D. Piliya — 1018.
- Ground States of Nonspherical Odd Nuclei According to the Independent-particle Model. D. A. Zaikin — 381.
- Measurement of the Lifetime of the First Excited State of Ne^{21} . A. G. Khabakhpashev and É. M. Tsenter — 705.
- On a Certain Possibility of Investigation of the Structure of Nucleons and Nuclei. N. G. Birger and Yu. A. Smorodin — 964.
- On the Nucleon + Core Model of the Nucleus with a Vibrational Excitation Spectrum of the Core. D. P. Grechukhin — 730.
- On the Rotational Levels of Li^7 . V. I. Mamasakhlisov and T. I. Kopaleishvili — 807L.
- On the Theory of the Nuclear Moment of Inertia. Yu. K. Khokhlov — 808L.
- Radioactive Decay of Ac^{227} and Excited Levels of Fr^{223} and Th^{227} . G. I. Novikova, E. A. Volkova, L. L. Gol'din, D. M. Ziv, and E. F. Tret'yakov — 663.
- Reduced Widths for Nucleon Associations in the Shell Model of the Nucleus. V. V. Balashov, V. G. Neudachin, Yu. F. Smirnov, and N. P. Yudin — 983.
- Resonance Scattering of Gamma Quanta by Mg^{24} . I. Sh. Vashakidze, T. I. Kopaleishvili, and G. A. Chilashvili — 535.
- Scattering of 5–10 Mev Protons on He^3 . K. P. Artemov, S. P. Kalinin, and L. N. Samoilov — 474.
- Superfluidity and the Moments of Inertia of Nuclei. A. B. Migdal — 176.
- The Energy of a Compressed Imperfect Fermi Gas. D. A. Kirzhnits — 414L.
- The Spectrum of Internal Conversion Electrons Accompanying Alpha Decay of U^{233} and the Level Scheme of Th^{229} . E. F. Tret'yakov, M. P. Anikina, L. L. Gol'din, G. I. Novikova, and N. I. Pirogova — 656.
- Transition Probabilities between Rotational States of Nonaxial Odd Nuclei. Wang Ling — 821L.
- Optical Instruments** (see Methods and Instruments)
- Optical Properties**
- Faraday Effect in Semiconductors on Free Carriers in a Strong Magnetic Field. L. É. Gurevich and I. P. Ipatova — 943.
- Light Waves in Crystals in the Exciton Absorption Region and the Impurity Photoeffect. I. M. Dykman and S. I. Pekar — 361.
- Measurement of Energy Loss of Fast Electrons Penetrating through Matter. N. A. Grishaeve, A. N. Fisun, A. S. Litvinenko, V. N. Grizhko, B. I. Shramenko, and I. N. Onishchenko — 1031L.
- On the Connection between the Optical Constants of Metals and their Microscopic Characteristics. G. P. Motulevich — 1249.
- Simple Method for Computing the Mean Range of Radiation in Ionized Gases at High Temperatures. Yu. P. Raizer — 769.
- Pair Production** (see Electrons and Positrons)
- Phosphors and Phosphorescence** (see Luminescence; Semiconductors)
- Photoconductivity** (see Electrical Conductivity and Resistance)
- Photodisintegration** (see Nuclear Photoeffects)
- Photoelectric Effect** (see Electrical Properties)
- Photography and Photographic Emulsions** (see Methods and Instruments; Optical Properties)
- Photometry** (see Methods and Instruments; Optical Properties)
- Photons** (see Radiation)
- Photovoltaic Effect** (see Electrical Properties; Semiconductors)
- Piezoelectric Effect** (see Dielectrics and Dielectric Properties)
- Polarization, Electrical** (see Dielectrics and Dielectric Properties)
- Positrons** (see Electrons and Positrons)
- Probability** (see Mathematical Methods)

Protons (see Elementary Particle Interactions)**Quantum Electrodynamics** (see also Field Theory)

- Application of the Dispersion Relations Method in Quantum Electrodynamics. V. Ya. Fainberg - 968.
- Dispersion Relations for the Scattering of Gamma Quanta by Nucleons. L. I. Lapidus and Chou Kuang-Chao - 1213.
- Dispersion Relations for the Virtual Compton Effect. I. S. Zlatev and P. S. Isaev - 519.
- Effect of Multiple Scattering on Pair Production by High-energy Particles in a Medium. F. F. Ternovskii - 718.
- Effect of Vacuum Fluctuations on the Polarization of Electrons Moving in a Magnetic Field. I. M. Ternov and V. S. Tumanov - 809L.
- Electron-electron Scattering and Quantum Electrodynamics at Small Distances. G. V. Avakov - 604L.
- Numerical Solution of Static Dispersion Relations of the Photoproduction P Wave. L. D. Solov'ev and G. N. Tentyukova - 634L.
- On Electromagnetic Corrections in μ -e Decay. V. P. Kuznetsov - 784.
- On the Masses of the Muon and the Electron. Ya. B. Zel'dovich - 1283L.
- On the Polarization of the Electrons in Bremsstrahlung Processes. A. A. Kresnin - 621L.
- On the Two-charge Renormalization Group in Scalar Quantum Electrodynamics. V. A. Shakhbazyan - 1263.
- Pair Production in Collisions between Charged Particles. F. F. Ternovskii - 565.
- Passage of Particles through a Plasma. A. I. Larkin - 186.
- Polarization Effects in the Direct Transition of $\mu^+ \mu^-$ into and Electron-positron Pair. B. A. Lysov - 404L.
- Polarization Effects in the $\pi^0 \rightarrow e^+ e^- + \gamma$ Decay. B. K. Kerimov, A. I. Mukhtarov, and S. A. Gadzhiev - 407L.
- Polarization Phenomena in Radiative Collisions of Two Electrons. V. L. Lyuboshitz - 1221.
- The Method of Dispersion Relations and Perturbation Theory. N. N. Bogolyubov, A. A. Logunov, and D. V. Shirkov - 574.
- Use of Dispersion Relations for a Test of Quantum Electrodynamics at Small Distances. I. S. Zlatev and P. S. Isaev - 826L.

Quantum Mechanics

- Application of the Variational Principle for the Determination of the Binding Energy of a Proton-Electron-Positron System. V. P. Shmelev - 325.
- Concentration of Charged Particles in Plasma of Spark-discharge Channel. A. A. Mak - 1055L.
- Contribution to the Theory of Relativistically Invariant Equations. L. A. Shepin - 1153.
- On the Conditions of Applicability of Statistical Formulas to a Degenerate Fermi Gas. Ya. B. Zel'dovich and E. M. Rabinovich - 924.
- On the Lagrangian Formalism for Spin Variables. D. V. Volkov and S. V. Peletminskii - 121.
- On the Phase of the Scattered Wave (a Reply to V. V. Malyarov). F. S. Los' - 836L.
- On the Relativistic Operators for Momentum and Angular Momentum. A. P. Gel'man - 339.

On the Theory of the Relativistic Transformations of the Wave Functions and Density Matrix of Particles with Spin. V. S. Popov - 794.

Quantum Theory of Spatial Dispersion of Electric and Magnetic Susceptibilities. O. V. Konstantinov and V. L. Perel' - 560.

Quasiclassical Solutions of the Radial Dirac Equations. N. I. Zhirnov - 1148.

Resonance Charge Exchange of Doubly Charged Ions in Slow Collisions. I. K. Fetisov and O. B. Firsov - 57.

The Dynamical Character of the Jahn-Teller Effect and its Influence on the Paramagnetic Resonance of Cu^{++} . V. I. Avvakumov - 723.

The Energy of a Compressed Imperfect Fermi Gas. D. A. Kirzhnits - 414L.

The Non-additivity of London-Van der Waals Forces. L. I. Podlubny - 633L.

Quenching of Radiation (see Radiation)**Radar** (see Methods and Instruments; Radiation)**Radiation** (see also Range and Energy Loss of Particles)

- Coherent Electron Radiation in the Synchrotron. II. L. V. Iogansen and M. S. Rabinovich - 83.
- Energy Lost to Radiation in a Gas-discharge Plasma. V. D. Kirillov - 812L.
- Field of a Charged Particle in a Moving Medium. B. M. Bolotovskii and A. A. Rukhadze - 958.
- Limits of Applicability of the Theory of Transition Radiation. G. M. Garibyan and I. Ya. Pomeranchuk - 1290L.
- Mechanism for the Production of Relativistic Electrons in the Atmospheres of Nonstationary Stars. I. M. Gordon - 608L.
- Nonresonance Absorption of Electromagnetic Waves in a Magnetoactive Plasma. B. N. Gershman - 497.
- On the Polarization of the Electrons in Bremsstrahlung Processes. A. A. Kresnin - 621L.
- Radiative Processes Ahead of a Shock-wave Front. L. M. Biberman and B. A. Veklenko - 117.
- Raman Scattering of Electromagnetic Waves in Ferromagnetic Dielectrics. F. G. Bass and M. I. Kaganov - 988.
- Shortwave Radiation from a Vacuum Spark. S. V. Lebedev, S. L. Mandel'shtam, and G. M. Rodin - 248.
- Simple Method for Computing the Mean Range of Radiation in Ionized Gases at High Temperatures. Yu. P. Raizer - 769.
- Use of Slow Molecules in a Maser. N. G. Basov and A. N. Oraevskii - 761.
- Radioactivity**
- Angular Correlation in Internal Conversion, Including Effects of Scattering and of the Finite Size of the Nucleus. A. K. Ustinova - 216L.
- Angular Distribution and Polarization of Beta Particles in Second Forbidden Transitions. A. Z. Dolginov and E. V. Kharitonov - 553.
- Alpha Decay of Th^{228} . Interaction of Nuclear Levels. L. L. Gol'din, G. I. Novikova, N. I. Pirogova, and E. F. Tret'yakov - 822L.
- Beta Decay of the Negative Muon. Yu. A. Budagov, S. Viktor, V. P. Dzhelepov, P. F. Ermolov, and V. I. Moskalev - 625L.

- Cross Section for Production of Cm^{240} by Irradiation of Th^{232} with C^{12} and C^{13} Ions. L. I. Guseva, B. F. Myasodov, N. I. Tarantin, and K. V. Filippova — 94.
- Decay of Te^{131} ($T_{1/2} = 30$ Hours). A. Bedescu, K. P. Mitrofanov, A. A. Sorokin, and V. S. Shpinel' — 221L.
- Emitters of α -Particles with Energies of about 9 and 12 Mev. V. A. Karnaukhov, V. I. Khalizev, and G. N. Flerov — 901.
- Experiments in the Production of a New Fermium Isotope. V. P. Pereygin, E. D. Donets, and G. N. Flerov — 1106.
- Forbidden Transitions in the Deformed Tm^{169} Nucleus. É. E. Berlovich, V. N. Klement'ev, V. G. Fleisher, O. V. Laronov, F. Sh. Murtazin, and D. A. Apostolov — 855.
- Gamma Rays from a Po-O^{18} Neutron Source. É. M. Tsenter, A. G. Khabakhpashev, and I. A. Pirkin — 806L.
- Intensity Rules for Beta Transitions to Different Rotational States of Even-even Daughter Nuclei. A. S. Davydov — 98.
- Measurement of the Degree of Longitudinal Polarization of Beta Particles. L. A. Mikaelyan and P. Ya. Spivak — 831L.
- Polarization β - γ Correlation in Beta Decay of Co^{60} . M. I. Lobashev, V. A. Nazarenko, and L. I. Rusinov — 1277L.
- Positron Spectrum of Eu^{152} and Eu^{152m} . S. F. Antonova, S. S. Vasilenko, M. G. Kaganski, and D. L. Kaminski — 477.
- Radioactive Decay of Ac^{227} and Excited Levels of Fr^{223} and Th^{227} . G. I. Novikova, E. A. Volkova, L. L. Gol'din, D. M. Ziv, and E. P. Tret'yakov — 663.
- Radioactive Decay of Ag^{107m} . N. M. Anton'eva, A. A. Bashilov, and E. K. Kulakovskiy — 1063.
- Second Forbidden Coulomb Beta-decay Transitions. Yu. V. Gaponov — 109.
- The Proton Subshell $Z = 100$. N. N. Kolesnikov and A. P. Krylova — 389L.
- The Spectrum of Internal Conversion Electrons Accompanying Alpha Decay of U^{233} and the Level Scheme of Th^{229} . E. F. Tret'yakov, M. P. Anikina, L. L. Gol'din, G. I. Novikova, and N. I. Pirogova — 656.
- Transition Radiation Effects in Particle Energy Losses. G. M. Gariyban — 372.
- Transition Radiation in Waveguides. K. A. Barsukov — 787.
- Range and Energy Loss of Particles**
- Collective Losses of Fast Electrons in Passage through Matter. V. P. Silin — 192.
- Field of a Charged Particle in a Moving Medium. B. M. Bolotovskiy and A. A. Rukhadze — 958.
- Limits of Applicability of the Theory of Transition Radiation. G. M. Gariyban and I. Ya. Pomeranchuk — 1290L.
- Measurement of Energy Loss of Fast Electrons Penetrating through Matter. N. A. Grishae, A. N. Fisun, A. S. Litvinenko, V. M. Grizhko, B. I. Shramenko, and I. N. Onishchenko — 1031E.
- On Certain Singularities in the Interaction with Light Nuclei of Particles with Energies $E \geq 2 \times 10^{12}$ ev. N. L. Grigorov and V. Ya. Shestoporov — 816L.
- Range-energy Relation for Some Substances. M. Z. Maksimov — 90.
- Transition Radiation Effects in Particle Energy Losses. G. M. Gariyban — 372.
- Rectifiers (see Electrical Conductivity and Resistance; Relativity and Gravitation)**
- A Generally Covariant Method of Successive Approximations in General Relativity. I. I. Gutman — 1162.
- Absorption of Sound and the Width of Shock Waves in Relativistic Hydrodynamics. M. T. Zhuravtsev — 711.
- Contribution to the Theory of Relativistically Invariant Equations. L. A. Shelepin — 1153.
- On Linear Theories of Gravitation. V. I. Pustovoi — 619L.
- On the Distribution Function for Dissipative Processes in a Rarefied Relativistic Gas. S. S. Moiseev — 391L.
- Possibility of Measuring the Velocity of Propagation of Gravitation in the Laboratory. I. L. Bershtein and M. E. Gertsenshtein — 1293L.
- Propagation of a Strong Electromagnetic-gravitational Wave in Vacuo. A. S. Kompaneets — 1218.
- Relativistic Spherical Functions. II. A. Z. Dolginov and I. N. Toptygin — 1022.
- Relativistic Spherical Functions, III. A. Z. Dolginov and A. N. Moskalev — 1202.
- Taking Account of the Gravitational Energy. D. D. Ivanenko and N. V. Mitskevich — 618L.
- Resistance, Electrical (see Electrical Conductivity and Resonance Radiation (see Radiation))**
- Scattering, General (see also Elementary Particle Interactions; Nuclear Reactions; Range and Energy Loss of Particles)**
- Analyticity and Unitarity in the Scattering of Scalar Mesons from a Static Nucleon. B. L. Ioffe — 1245.
- Dispersion Relations for the Scattering of Gamma Quanta by Nucleons. L. I. Lapidus and Chou Kuang-Chao — 1213.
- Inelastic Scattering of Nucleons on Mg^{24} and Si^{28} Nuclei. V. I. Mamasakhlisov and T. I. Kopaleishvili — 93.
- Excitation of Nuclear Vibrational and Rotational States in the Scattering of Charged Particles. E. A. Romanovskiy — 59.
- Excitation of Rotational States of Nonaxial Nuclei in Alpha-particle Scattering. E. A. Romanovskiy — 606L.
- Maximum Atomic Cross Sections for Nonresonance Charge Exchange. N. V. Fedorenko and V. A. Belyaev — 1276L.
- Nuclear Reactions Induced by Heavy Ions. J. H. Fremlin and J. S. Little — 229L.
- On the Inclusion of Exchange in the Theory of Collisions. R. K. Peterkop — 834L.
- On the Methods of Born and Pais for Finding Phase Shifts. T. Titts — 207L.
- On the Phase of the Scattered Wave (A Reply to V. V. Malyarov). F. S. Los' — 836L.
- Optical Anisotropy of Atomic Nuclei. A. M. Baldin — 142.
- Raman Scattering of Electromagnetic Waves in Ferro-magnetic Dielectrics. F. G. Bass and M. I. Kaganov — 986.

- Resonance Charge Exchange of Doubly Charged Ions in Slow Collisions. I. K. Fetisov and O. B. Firsov — 67.
- Scattering of a Proton by a Nucleon in the One-meson Approximation. E. D. Zhizhin — 707.
- Scattering of Alpha Particles**
- Alpha Spectrum of the Natural Samarium Isotope Mixture. A. A. Vorob'ev, A. P. Komar, V. A. Korolev, and G. E. Solyakin — 386L.
- Excitation of Nuclear Vibrational and Rotational States in the Scattering of Charged Particles. E. A. Romanovskii — 59.
- Excitation of Rotational States of Nonaxial Nuclei in Alpha-particle Scattering. E. A. Romanovskii — 606L.
- Scattering of Deuterons**
- Capture of Polarized Muons by Deuterons. A. P. Bukhvostov and I. M. Shmushkevich — 1042L.
- Measurement of the Polarization of Deuterons in the Reaction $p + p \rightarrow d + \pi^+$ at Proton Energies of 670 Mev. Yu. K. Akimov, K. S. Marish, O. V. Savchenko, and L. M. Soroko — 33.
- Scattering of Electrons and Positrons** (see also Electrons and Positrons)
- Electron-Electron Scattering Cross Section at High Energies. V. N. Bafer — 1057L.
- Inelastic Collision between Fast Polarized Particles and Atoms. V. V. Batygin and I. N. Toptygin — 975.
- Measurement of Energy Loss of Fast Electrons Penetrating through Matter. N. A. Grishin, A. N. Fisun, A. S. Litvinenko, V. M. Grizhko, B. I. Shramenko, and I. N. Onishchenko — 1031L.
- On the Inclusion of Exchange in the Theory of Collisions. R. K. Peterkop — 834L.
- Polarization β - γ Correlation in Beta Decay of Co^{60} . M. I. Lobashev, V. A. Nazarenko, and L. I. Rusinov — 1277L.
- Polarization Effects in the Elastic Scattering of Electrons from Deuterons. G. V. Frolov — 369.
- Scattering of Electrons by Light Nonspherical Nuclei. E. V. Inopin and B. I. Tishchenko — 932.
- Scattering of Low-energy Electron by Short-range Potential in Strong Magnetic Field. V. G. Skobov — 1039L.
- Scattering of Mesons** (see also Nuclear Reactions Induced by Mesons)
- Cross Sections for Elastic Scattering of 195-Mev Positive Pions by Carbon and Lithium Nuclei. V. G. Ivanov, V. T. Osipenko, N. I. Petrov, and V. A. Rusakov — 615L.
- Dispersion Relations for Inelastic Processes Involving K Mesons. J. Wolf — 980.
- Elastic Scattering of 5–22 Mev π^+ Mesons on Carbon. V. G. Kirillov-Ugryumov, L. P. Kotenko, E. P. Kuznetsov, F. M. Sergeev, and A. F. Grashin — 907.
- Elastic Scattering of 390 Mev π^+ Mesons from Protons. E. L. Grigor'ev and N. A. Mitin — 1123.
- Inelastic Collisions between Fast Polarized Particles and Atoms. V. V. Batygin and I. N. Toptygin — 975.
- Inelastic Interaction of π^+ Mesons with Light Nuclei in the Energy Region 80–300 Mev. A. G. Meshkovskii and Ya. Ya. Shalamov — 697.
- Inelastic Scattering and Absorption of (195 $\pm$ 15)-Mev Positive Pions by Carbon and Lithium Nuclei. N. I. Petrov, V. G. Ivanov, and V. A. Rusakov — 682.
- π^-p Interaction at 1.4 Bev. V. I. Rus'kin — 74.
- Polarization of Recoil Protons Produced in Elastic Scattering at 307 Mev. E. L. Grigor'ev and N. A. Mitin — 295.
- Resonance Interaction of Pions. V. S. Barashenkov and V. M. Mal'tsev — 630L.
- Scattering of Neutrons** (see also Nuclear Reactions Induced by Neutrons)
- Elastic Scattering of 8.7-Bev Protons by Photoemulsion Nuclei. B. P. Bannik, V. G. Grishin, M. Ya. Danysh, V. B. Lyubimov, and M. I. Podgoretskii — 1118.
- On the Collisions of Nucleons with Large Orbital Angular Momentum. A. D. Galanin, A. F. Grashin, B. L. Ioffe, and I. Ya. Pomeranchuk — 1179.
- Polarization of (d-d) Neutrons. P. S. Oststavnov — 1281L.
- Variation of Angular Distributions of Neutrons Elastically Scattered from He^3 . A. I. Abramov — 1046L.
- Scattering of Protons** (see also Nuclear Reactions Induced by Protons)
- Angular Distribution of Shower Particles in Stars Produced by High-energy Particles. L. A. San'ko, Zh. S. Takibaev, Ts. I. Shakhova, and L. Ya. Balats — 1.
- Determination of the p-p Scattering Matrix at 90°. S. B. Nurusev — 212L.
- Elastic Proton-Proton Scattering at 8.5 Bev. V. B. Lyubimov, P. K. Markov, E. N. Tsyganov, Cheng P'u-Ying, and M. G. Shafranov — 651.
- Elastic Scattering of 630-Mev Neutrons by Protons. N. S. Amaglobeli and Yu. M. Kazarinov — 1125.
- Interaction of 9-Bev Protons with Free and Quasifree Nucleons in Photographic Emulsions. N. P. Bogachev, S. A. Bunyatov, I. M. Gramenitskii, V. B. Lyubimov, Yu. P. Merekov, M. I. Podgoretskii, V. M. Sidorov, and D. Tuvdendorzh — 872.
- Nuclear Interactions of 8.7-Bev Protons in Photographic Emulsions. G. B. Zhdanov, V. M. Maksimenko, M. I. Tret'yakova, and M. N. Shcherbakov — 442.
- On the Collisions of Nucleons with Large Orbital Angular Momentum. A. D. Galanin, A. F. Grashin, B. L. Ioffe, and I. Ya. Pomeranchuk — 1179.
- Scattering of 5–10 Mev Protons on He^3 . K. P. Artemov, S. P. Kalinin, and L. N. Samoilov — 474.
- Theoretical Interpretation of Inelastic (pp) and (pn) Collisions at 9 Bev Energy. V. S. Barashenkov, V. M. Mal'tsev, and E. K. Mikhail — 1052L.
- Use of the (d, p) Reaction to Excite States with Large Spins. V. G. Neudachin, I. B. Teplov, and A. F. Tul'nov — 387L.
- Scattering of Radiation** (see Radiation)
- Scintillation Counters** (see Methods and Instruments)
- Secondary Emission** (see Electrical Properties)
- Semiconductors**
- Electron Resonance in Crossed Electric and Magnetic Fields. I. M. Lifshitz and M. I. Kaganov — 392L.
- Faraday Effect in Semiconductors on Free Carriers in a Strong Magnetic Field. L. E. Gurevich and I. P. Ipatova — 943.

Kinetic Theory Impact Ionization in Semiconductors.

L. V. Keldysh — 509.

Quantum-mechanical Semiconductor Generators and Amplifiers of Electromagnetic Oscillations.

N. B. Basov, B. M. Vul, and Yu. M. Popov — 416L.

Radiative Recombination in Germanium Crystals Bombarded by Fast Electrons.

V. S. Vavilov, A. A. Gippius, M. M. Gorshkov, and B. D. Kopylovskii — 15.

The Influence of Collisions between Electrons on their Velocity Distribution in Gases and in Semiconductors in an Electric Field.

A. V. Gurevich — 215L.

Solid State (see Crystalline State)**Solutions (see Liquids)****Sound (see Acoustics)****Spallation (see Nuclear Reactions)****Spark Discharge (see Electrical Discharges)****Spectra, Atomic (see Atomic Structure and Spectra)****Spectra, General**

Concentration of Charged Particles in Plasma of Spark-discharge Channel. A. A. Mak — 1055L.

Gamma Rays from a Po-²¹⁰ Neutron Source. É. M. Tsenter, A. G. Kahabkhashev, and L. A. Pirkin — 806L.

Shortwave Radiation from a Vacuum Spark. S. V. Lebedev, S. L. Mandel'shtam, and G. M. Rodin — 248.

Spectra, Nuclear (see Nuclear Spectra)**Spectroscopy Technique (see Methods and Instruments)****Spinor Fields (see Field Theory)****Stark Effect (see Atomic Structure and Spectra)****Statistical Mechanics and Thermodynamics**

Classification of Molecular Terms with Respect to Total Nuclear Spin. E. G. Kaplan — 747.

Collective Losses of Fast Electrons in Passage through Matter. V. P. Silin — 192.

Condensation of a Cloud of Vaporized Matter Expanding in Vacuum. Yu. P. Raizer — 1229.

Concentration Jump in Slow Evaporation of a Mixture. R. Ya. Kucherov and L. É. Rikenglaz — 1285L.

Distribution of the Density of Protons in a Nucleus with a Given Angular Momentum. L. P. Rapoport and S. G. Kadmenskiy — 929.

Effect of Inelastic Collisions on the Velocity Distribution of Electrons. L. M. Kovrizhnykh — 347.

On Hydrodynamic Boundary Conditions for Evaporation and Condensation. R. Ya. Kucherov and L. É. Rikenglaz — 88.

On Popov's Relation between the Symmetry of Transport Coefficients and Thermodynamics. R. Davies and F. Goodman — 828L.

On the Distribution Function for Dissipative Processes in a Rarefied Relativistic Gas. S. S. Moiseev — 391L.

Oscillations of an Inhomogeneous Plasma in a Magnetic Field. L. I. Rudakov, and R. Z. Sagdeev — 952.

Relativistic Transport Equations for a Plasma. I. Yu. L. Klimontovich — 524.

Shift in Curie Temperature During Uniform Compression of Manganese and Cobalt Fluorides. D. N. Astrov, S. I. Novikova, and M. P. Orlova — 851.

Theory of Weak Solutions of He⁴ in Liquid He³. V. N. Zharkov and V. P. Silin — 102.**Statistical Methods (see Mathematical Methods)****Superconductivity**

A Simple Model in the Theory of Superconductivity.

Yu. B. Rumer — 409L.

Analysis of Experimental Data Relating to the Surface Impedance of Superconductors. A. A. Abrikosov, L. P. Gor'kov, and I. M. Khalatnikov — 132.

Destruction of Superconductivity in Thin Films by Field and Current. N. I. Ginzburg and A. I. Shal'nikov — 285.

Effect of Exchange Interaction on the Superconductor Transition Temperature. S. V. Vonsovskii and M. S. Svirskii — 1060L.

Investigation of Thermal Properties of Superconductors, III. Anisotropy of Thermal Conductivity of Gallium. N. V. Zavaritskii — 1069.

Investigation of X-ray Spectra of Superconducting CuS. I. B. Borovskii and I. A. Ovsyannikova — 1033L.

On Taking the Coulomb Effect into Account in the Theory of Superconductivity. D. V. Shirkov — 127.

On the Intermediate State of Ferromagnetic Superconductors. G. F. Zharkov — 1259.

On the Superconductivity of the Compound BiPt. N. N. Zhuravlev, A. A. Stepanova, and N. I. Zyuzin — 627L.

On the Zone Energy Spectrum in the Presence of a Magnetic Field. G. E. Zil'berman — 1029.

Superconductivity of Beryllium and Its Low-temperature Polymorphism. B. G. Lazarev, A. I. Sudovtsev, and E. E. Semenenko — 1035L.

The Critical Supercooling Field in Superconductivity Theory. L. P. Gor'kov — 293.

The Use of a Superconducting Ring for Registering the Phase Transition in Liquid Helium. B. N. Esel'son and A. D. Shvets — 228L.

Two-particle Excitations of Superfluid Fermi-Systems. Yu. V. Tsekhmistrenko — 829L.

Ultrasonic Absorption in Metals in a Magnetic Field. I. V. L. Gurevich — 51.

Thermal Properties

Anomalous Heat Capacity and Nuclear Resonance in Crystalline Hydrogen in Connection with New Data on Its Structure. S. S. Dukhin — 1054L.

Concentration Jump in Slow Evaporation of a Mixture. R. Ya. Kucherov and L. É. Rikenglaz — 1285L.

Magnetostriction of Antiferromagnetic Nickel Monoxide. K. P. Belov and R. Z. Levitin — 400L.

Shift in Curie Temperature During Uniform Compression of Manganese and Cobalt Fluorides. D. N. Astrov, S. I. Novikova, and M. P. Orlova — 851.

The Use of a Superconducting Ring for Registering the Phase Transition in Liquid Helium. B. N. Esel'son and A. D. Shvets — 228L.

Thermoelectric Phenomena in Strong Magnetic Fields in Metals Possessing Various Fermi Surfaces. Yu. A. Bychkov, L. É. Gurevich, and G. M. Nedlin — 377.

Thermionic Emission (see Electrical Properties)**Thermodynamics (see Statistical Mechanics and Thermodynamics)****Thermoelectric Effect (see Electrical Properties; Semiconductors)****Total Cross Sections (see Electrons and Positrons; Nuclear Reactions)****Uncertainty Principle (see Quantum Mechanics)**

Vacuum Tubes (see Methods and Instruments)

Viscosity (see Liquids)

Wave Mechanics (see Quantum Mechanics)

Work Function (see Electrical Properties)

X-rays

Anomalous Heat Capacity and Nuclear Resonance in

Crystalline Hydrogen in Connection with New Data

on Its Structure. S. S. Dukhin — 1054L.

Diffraction of X-rays by Polycrystalline Samples of Hydrogen Isotopes. V. S. Kogan, B. G. Lazarev, and R. F. Bulatova — 485.

Investigation of X-ray Spectra of Superconducting CuS.

I. B. Borovskii and I. A. Ovsyannikova — 1033L.

Optical Anisotropy of Atomic Nuclei. A. M. Baldin — 142.

ERRATA TO VOLUME 9

On page 868, column 1, item (e) should read:

(e). Ferromagnetic weak solid solutions. By way of an example, we consider the system Fe-Me with A2 lattice, where Me = Ti, V, Cr, Mn, Co, and Ni. For these the variation of the moment m with concentration c is

$$dm/dc = (Nd)_{Me} \mp 0.642 \{ 8 (2.478 - R_{Me}) + 6 | 2.861 - R_{Me} | \mp [8 (2.478 - R_{Fe}) + 6 (2.861 - R_{Fe})] \},$$

where the signs - and + pertain respectively to ferromagnetic and paramagnetic Me when in front of the curly brackets, and to metals of class 1 and 2 when in front of the square brackets. The first term and the square brackets are considered only for ferromagnetic Me. We then have $dm/dc = -3$ (-3.3) for Ti, -2.6 (-2.2) for V, -2.2 (-2.2) for Cr, -2 (-2) for Mn, 0.7 (0.6) for Ni, and 1.2 (1.2) for Co; the parentheses contain the experimental values.

ERRATA TO VOLUME 10

Page	Reads	Should Read
224, Ordinate of figure	10^{23}	10^{20}
228, Column 1, line 9 from top	3.6×10^{-2} mm/min	0.36 mm/min
228, Column 1, line 16 from top	0.5 mm/sec	0.05 mm/min
329, Third line of Eq. (23a)	$+(1/4 \cosh r + \dots$	$+1/4(\cosh r + \dots$
413, Table II, line 2 from bottom	$-0.0924 \pm$	$-1.0924 \pm$
413, Table II, line 3 from bottom	$+1.8730 \pm$	$+0.8370 \pm$
479, Fig. 7, right, 1st line	92 hr	9.2 hr
499, Second line of Eq. (1.8)	$+\frac{1}{k} \sin^2 \alpha / \omega_N^2 + \langle c^2 k^2 \dots$	$+\left(\frac{1}{k} \omega_H\right)^2 \sin^2 \alpha + \langle c^2 k^2 \dots$
648, Column 1, line 18 from top	18×80 mm	180×80 mm
804, First line of Eq. (17)	$-1/3 (a_x^2 a_y^2 + \dots$	$\dots - 3 (a_x a_y^2 + \dots$
967, Column 1, line 11 from top	$\sigma(N', \pi) \approx 46(N', N')$	$\sigma(N', \pi) > \sigma(N', N')$
976, First line of Eq. (10)	$= \frac{e^2}{3r^2 z^4}$	$= \frac{e^2}{3k^2 z^2}$
978, First line of Eq. (23)	$\left[\frac{(2\gamma^2 - 1)^2}{(\gamma^2 - 1)^2 \sin^4(\theta/2)} \right]$	$\left[\frac{(2\gamma^2 - 1)^2}{(\gamma^2 - 1)^2 \sin^4(\theta/2)} \right]$